

SEQ ID NO:	Predicted beginning nucleotide location corresponding to first amino acid residue of amino acid sequence	Predicted end nucleotide location corresponding to first amino acid residue of amino acid sequence	Amino acid segment containing signal peptide (A=Alanine, C=Cysteine, D=Aspartic Acid, E=Glutamic Acid, F=Phenylalanine, G=Glycine, H=Histidine, I=Isoleucine, K=Lysine, L=Leucine, M=Methionine, N=Asparagine, P=Proline, Q=Glutamine, R=Arginine, S=Serine, T=Threonine, V=Valine, W=Tryptophan, Y=Tyrosine, X=Unknown, *=Stop Codon, /=possible nucleotide deletion, \=possible nucleotide insertion)
6675	277	1678	GNWPTERMAFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVD LEKIHPPSPMPGDSGSEIQSGNGETOGYVVAQSVDTSSWDFGIR RRSNTAQRLELRKERQNIQCKNIQWKERNKQSAOELKSLFE KKSLEKEPPIFGKQSILSVRLQCCPLQLNPNFNEYSKFDGKGHV GTTATKKIDVYPLHSSQDRLLPMTVVIMASARVQDLIGLICWQ YTSEGREPKLNDVNSAYCLHIAEDDGEVDTDFPPLDSNEPIHKF GFSTLALVEKYSSPGLTSKESLFVRINAAGFSLIQVDNTKVTM KEILLKAVKRRKGSQKVSGRADGVFEEDSQIDIATVQDMLSSH HYKSFKVSIMHRLRFTTDVQL/GCALFPGVLRKRAAPVDCLRPS ADTWRQEQIGCCGAACAALRS*DSHKC*EGISGDKVEIDPVTNQ KASTKFWIKQKFIISIDSLLCAC\DLAEE
6676	277	1678	GNWPTERMAFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVD LEKIHPPSPMPGDSGSEIQSGNGETOGYVVAQSVDTSSWDFGIR RRSNTAQRLELRKERQNIQCKNIQWKERNKQSAOELKSLFE KKSLEKEPPIFGKQSILSVRLQCCPLQLNPNFNEYSKFDGKGHV GTTATKKIDVYPLHSSQDRLLPMTVVIMASARVQDLIGLICWQ YTSEGREPKLNDVNSAYCLHIAEDDGEVDTDFPPLDSNEPIHKF GFSTLALVEKYSSPGLTSKESLFVRINAAGFSLIQVDNTKVTM KEILLKAVKRRKGSQKVSGRADGVFEEDSQIDIATVQDMLSSH HYKSFKVSIMHRLRFTTDVQL/GCALFPGVLRKRAAPVDCLRPS ADTWRQEQIGCCGAACAALRS*DSHKC*EGISGDKVEIDPVTNQ KASTKFWIKQKFIISIDSLLCAC\DLAEE
6677	277	1678	GNWPTERMAFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVD LEKIHPPSPMPGDSGSEIQSGNGETOGYVVAQSVDTSSWDFGIR RRSNTAQRLELRKERQNIQCKNIQWKERNKQSAOELKSLFE KKSLEKEPPIFGKQSILSVRLQCCPLQLNPNFNEYSKFDGKGHV GTTATKKIDVYPLHSSQDRLLPMTVVIMASARVQDLIGLICWQ YTSEGREPKLNDVNSAYCLHIAEDDGEVDTDFPPLDSNEPIHKF GFSTLALVEKYSSPGLTSKESLFVRINAAGFSLIQVDNTKVTM KEILLKAVKRRKGSQKVSGRADGVFEEDSQIDIATVQDMLSSH HYKSFKVSIMHRLRFTTDVQL/GCALFPGVLRKRAAPVDCLRPS ADTWRQEQIGCCGAACAALRS*DSHKC*EGISGDKVEIDPVTNQ KASTKFWIKQKFIISIDSLLCAC\DLAEE
6678	221	865	GPSNQSSGSELIIVTGCSYWS*INDTCTILRVLSNFRGRQ*LR PFPCSQPLPMSQGLWHLDCCPWVPYIPGQOWRKGRORMRN*QS LIGSDQESVGLDLCVFNFLHVLGLFP*PHELFLPVVDLG FLFPLLLQGGCHCLVLPANLVSAQAPQIGKLSRLQTHDEGSRN HHPLFLVVGWRWDAVKHLETVQSGLASLGFVGQHTSHGPF
6679	2	786	LEFARGAMPFLGODWRSFGQNWVKTVDGWKRFLEKSGSFVSDL SSYCNKEVYNKENLFSNLND/SCSQEEKEGHA*ONONS\DFH QEKWYVHKGSTKERHGYCTLGEAFNRDLDFSTAILDSRRFNYYV RLLELIAKSQTSLSGIAQKNFMNILEKVVLKVLDDQONITLIR ELLQTLTSLCTLVKRVGKSVLVGNINMAYRMETILHWQQQLN NIQITRVSGQAOPPPGSGSLHRDTGTQTRDQDEFTPTVTEESGLF
6680	1498	2951	PLCTLPLMPSALPGWAGERWEXQWPLA/PGPGTWQTPVGSISEE P/RKNEPDTHCPRGARPEV*HLPKPHSPGSEGAETSA*ALP /NQVSPPOPM*CAENGQDQGGKEEAGEELHRS SGLTAAPGF EVHRNLQTFPGLPSRGGGP/GGAGTQGSWAPGEQPP/SPLLPAS MORSQAGLPGWEAGLVESPTHIPALRPSGINATGEAFPTTCS SGP/PAPPPTGLRPGGSSSGGHG*PGLPVCKV\GALGAAQD PQSQRGPTQGTVGTEMLLSGLGSAKACPAARPAVP*LPSDPAS TIPKKGTRGFGECPGVLOERNRWVGRAGQFTSADAAGTAPPGV *LPAPLSQPPGATEPQVRACGMAPPSPGTSRGLVANGRHFGPOV AQGCCPPGAGCWCSPRGSRQCPRTYTHSPLGHGRAPCPRRCWH* WQDPPSSPRTGCLPGIFARQAYSAPRTRSRPIRTGRAAYGFIR FQGGGGG

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6681	1169	511	INVIYYNQOORAFHELK\EKLM SAPALGLPDLTKLFTLHVSERE KMTVGVLTTQVGFWSRPGAYLSKQLDGVSKGWPPCPRALAATAL LAQEADELTLRQNLNRKSPHA\VVTLINTKGHH*LINARLTRYQ TLLCENPHKTIEVSNT/LNPATLLVTESPVKHNCLEVLDSVYS SRPNLRDHP*TSVDWELVVDGSGFANPCRVTLKKETSAPVTPR S
6682	109	1238	TVLCGAMQVSSLNEVKIYSLSCGKSLPEWLSDRKKRALQKKDND VRRRIELIODFEMPTVCTTIKVS KDQYILATGTYKPRVRCYDT YQLSLKFERCLDSEVVTFEILSDDYSKIVFLHNDRIEFHSQSG FYYKTRIPKFCRDFSYHYPSCDLYFVGASSEVYRLNLEQGRYLN PLQTDAAENNVCDINSVHGLFATGTIEGRVECDPRTNRNVGLL D\AP*TVSQQIOR*TSLPTISALKFN\GALTMVGTITGQVLLY DLRSDKPLLVDHOYGLPIKSVHFQDSL D LILSADSRIVKMWNK NSGKIFTSLEPEHDLNDVCLYPNSGMLLTANETPKMGIYYIPVL GPAPRWCSFLDNLTEELEENPESNE
6683	109	1238	TVLCGAMQVSSLNEVKIYSLSCGKSLPEWLSDRKKRALQKKDND VRRRIELIODFEMPTVCTTIKVS KDQYILATGTYKPRVRCYDT YQLSLKFERCLDSEVVTFEILSDDYSKIVFLHNDRIEFHSQSG FYYKTRIPKFCRDFSYHYPSCDLYFVGASSEVYRLNLEQGRYLN PLQTDAAENNVCDINSVHGLFATGTIEGRVECDPRTNRNVGLL D\AP*TVSQQIOR*TSLPTISALKFN\GALTMVGTITGQVLLY DLRSDKPLLVDHOYGLPIKSVHFQDSL D LILSADSRIVKMWNK NSGKIFTSLEPEHDLNDVCLYPNSGMLLTANETPKMGIYYIPVL GPAPRWCSFLDNLTEELEENPESNE
6684	111	527	GLRGGTSRGRAGREFEFAAGVLCVVAGFCQSPCPGGRGREAPA PP\SGRRHA*RPA*WLGPGGDSGGREEGGS/GELQRAMESKMG ELPLDINIQEPWQDQSTFLGRARHFTVTDPNLLLSGAOLEAS RNIVQNYR
6685	256	1473	KLLGDNFEGFCNKFELSDSENGSNS*QSPL\FDRLFDPDQPKVL QGVIDMKNVIGNNKQKANLIVLGAVPRLLYLLQOETSSTELKT ECAVVLGSLAMGTENNVSLLDCHII PALLOGLLSPDLKFIEAC LRCLRTIFTSPVTPEELLYTDATVIPHMLALLSRRYTQEIYICQ IFSHCCCKGPDHQTILFNHGAQNIHLLTSLSYKVRMQLKCF S VLAFFENPQVSMTLVNVLVDGELLPQIFVKMLQRDKPIEMQLTSA KCLTYMCRAGAIRTDDNCIVLKTLPCLVRMCSKERLLEERVEGA ETLAYLIEPDVELORIASITDHLIAMLADYFKYPSSVSAITDIK RLDHDLKHAHELROAAFKLYASLGANDEDIRKKVSLGEGRPVVL TASRQGVTS
6686	310	927	DSVTFDDLAVDFTPKEWTLTLDPTQRLYRDVMLENYKNLATVGY QLFKPSLISWLEQEEESRTVQRGDFQASEWKVQLKTKEALQQDV LGEPSTSGIOMIGSHNGGEVSDVKQCGDVSSEHSCLKTHVRTQN SENTFECYLYGVDFLTLHKKTS TGEQR.SVFSHVWKKPSSLNPDV VCQKNRCTRKKKAF*LQTLGKSPH*SIHT
6687	181	915	EAMLEAPYKKEEDEQORKEVKDYPSNTTSSSTNSGNETSGSST IGTSNRSRDRYRRNRSSRSPGRCRHRSSWDRRHGSES SRDHRREDRVHYRSPPLATGEPVDNLSPEERDARTVFCMLAAR IRPRDLEDFFSAVGKVRDVRIISDRNSRRSKGIAYVEFCEIQSV PLAIGLTGORLLGVPIIVQASQAEKNRLAAMANNLQKNGGPMR LYVCSLHFNITEDMLRGI FEPFGKV
6688	1021	1	AEVFNYPVRFHKCPDSCWRFKQPIQLQPYILLSFSSEKPPISF SEPGLPR/SATARMATAAAPNSSIDLPDSGGMGFI SPAGDSLD LPSDGGTGFFSLAGDSSSTRLSLAFISFSLSSVSVGSAGTTS STSVGSVVAFTSSSSSTNRDVAGLDFSTVITSVSGSLVPSRE VAVICGSKGAGASGSASCSSRAGKTTEATAASSMPSTSSSFTC TMSELEELFSLPAPILLSKLFTSSGSIAICQDSGSPSDTGRLS VCQLWLADSDTKLSDCQEVTVGDSGGLTCPELSLGRM*MSLL

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			SSAVIFGYSSSSDSRLNTVPTVDLLCPFTKSSST
6689	640	1299	SSSASYATSATISDTAFSGSLKXGLLSALDSSSRST*STSS AEDSTFRICSPSVDTSDDSSGKDNVLLFSKVS1*SCFSLSS FFSDSISFCFSSSSFCR*FVSEKVSQNALSSRLNPGGSSK QRNSLTARQLAMSL*ATKF*RNACNPCLSSKXSAL*LSLNQRF GGSASRKPGNISFNSQKCSALS*CCNFVFKPREVSVSSENYPAF
6690	1	442	GTRGKMAATLGLPLGSWQWRRLSARDGSRMLLLLLLLGSGCGP QOVGAGOTFEYLKREHSLSKPYQGVGTGSSSLWNLMGNAMVMTQ YIRLTFDMQSKQGLWNRVPCFLRDWELQVHFHIGOGKKNL\H GDGLAIWYTKDRMQP
6691	287	1401	LKTETSEKARRYKDRPSQLNAVFOEQKKMIOAQESITLEDVAV DFTWEWQLLGAQKDLRDVMLENYSNLVAVGYQASKPDALFK LEQQEQWLTIEDGIHSGACSDIWKVDHVLRLQSESLVNRKPC HEHDAFENIVHCSKSQFLGQNHDI FDLRGKSLKSNLTLVNQSK GYEIKNSVEFTGNGDSFLHANHERLHTAIKFPASQKLSTKSQF ISPKHOKTRKLEKHHVCSECGKAFIKKSWLTDHQMHTGEKPHR CSLCEKAFSRKFMTEHQRTHTGEKPYECPECGKAFLLKKSRLNI HQKTHTEKPYICSECGKGFIOKGNLIVHQRHTGEKPYICNEC /GKGFICKTCLIAHQRFHTER
6692	171	939	WKEGELSLWERFCANI KAGPMFKHIAFIMDGNRRYAKKQVE RQEGHSQGFNKLAEFLRWCLNLGILEVTYVAFSIENFKRSKSEV DGLMDLARQKFSRLMEEKEKLQKHGVCIRVLGDLHLPLDLQEL IAQAVQATKNYNKCFNLVCFAYTSRHEISNAVREMAWGEQGLL DPSDISESLDKCLYTNRSPPHDILIRTSGEVRLSDFLWQTS SCLVFQPVLPWEYTFWNLFMAILQFOMNHSVLQK
6693	171	939	WKEGELSLWERFCANI KAGPMFKHIAFIMDGNRRYAKKQVE RQEGHSQGFNKLAEFLRWCLNLGILEVTYVAFSIENFKRSKSEV DGLMDLARQKFSRLMEEKEKLQKHGVCIRVLGDLHLPLDLQEL IAQAVQATKNYNKCFNLVCFAYTSRHEISNAVREMAWGEQGLL DPSDISESLDKCLYTNRSPPHDILIRTSGEVRLSDFLWQTS SCLVFQPVLPWEYTFWNLFMAILQFOMNHSVLQK
6694	292	813	SLLLHLAPPAYTPSQPLSSVSTETASSVRRQAAESRQHELFPVR EVHSLGQILPDGLTAEAGPPEAODPWGSPGISLPAAHIGFAAA LAVGPGSGCHTEP\FDEVWPSLFLGDAYAARDKSKLIQLGITHVV NAAAGKFOVDTGAKFYRGMSLEYGYIEADDNPFFDLVSVYFLP
6695	292	813	SLLLHLAPPAYTPSQPLSSVSTETASSVRRQAAESRQHELFPVR EVHSLGQILPDGLTAEAGPPEAODPWGSPGISLPAAHIGFAAA LAVGPGSGCHTEP\FDEVWPSLFLGDAYAARDKSKLIQLGITHVV NAAAGKFOVDTGAKFYRGMSLEYGYIEADDNPFFDLVSVYFLP
6696	1	782	PRVRGRVGERWAFSLVPAAMSSSEMEPLLLAWSYFRKKFQLCAD LCTQMLEKSPYDQAAWILKARALTEMVYIDEIDVDQEGIAEMML DENAIQVPRPGTSLKLPNTQTGGFSQAVRPITQAGRPTITGFL RPSTQSGRPGTMEQAIPTPTATYARPTSSSGRFVRLGTASML TSPDGPFINLSRLNLTKYSQKPKLAKALIEYIFHHENDVKTALD LAALSTEHSQYKDWKK/DQIEKCYRVGMRYEAEEKQIKSS
6697	3	782	PPLFLRLNSRALRPGSRKVMVVFASLSGQDVGSFAYLTIKDR IPQILTVIDTLHRHKSEFFEKHGEEGVEAEKKAISLLSKLRNE LOTDKPFIPLVEKFVDTDIWQYLEYQOSLLNESDGKSRWFYSP WLLV\ECYMYRRIHEAI\IQSPPIDYDFVFKESKEQNFYGSQES IIALCTHLQQLIRTIEDLD\ENQLKDEFFKLLQISLWGEISVDL SL\SGGESSSQNTNVLNLEDLKPFILNDMEHLWSLLSNCK
6698	666	754	VGSCACAGSCCKECKCTSCCKKSECAFP
6699	325	492	EGELP/PARRVLPRAMTASAPRGRPGVGVGVVVTSCKHPRCV LLGKRKGSVGAGSFOLPGGHLEFGETWECAQRETWEAALHLK NVHFASVNSFIEKENYHYVTILMKGEVDVTHDSEPKNVEPEKN

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6700	1096	1392	ESKR I IYNHAF FQESKWSGGILQ TQCWRSTSTFGMRTHFRTP/RLECGGFSQQENGHCMDTNECIQ FFPVCPRDKPVCVNTYGSYRCRTNKKCSRGYEPNEDGTACVERT LLLGLCNLLGK
6701	2	1485	AAAGPRTRVRRAAAFEGQSPSPSGLGPTSDKAAAPRTPKRRRLW RORQ/HPAMLCYVTRFDVLMVEVEAEKANGEDCLNQVCRRIGI IEVDYFGLQFTGSKGESLWLNLRNRISQOMDGLAPYRLKLRVKF FVEPHLILQEQTRHIFFLHIKEALLAGHLLCSPEQAVELSALLA QTKFGDYNONTAKYNYEELCAKELSSATLNSIVAKHKELEGTSQ ASAEYQVLQIVSAMENYGI EWHSVRDSEGQKLLIGVGPEGISIC KDEFSPI NRIAYPVVQMATQSGKNVYLTVTKESGNSIVLLFKMI STRAASGLYRAITETHAFYRCDTVTSAVMMQYSRDLKGHLASLF LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRNNQ SPSHSPLKSSSESMNCSSCEGLSCQQTRVLQEKLRKLKEAMLCM VCCEEEINSTFCPCGHTVCCESCAAOLOVGESAAHFCLQPHLSL LLTGSRSQVLAR
6702	397	1971	PLAKFLKLDLVNVLCLPMEDVFLFYRTCFCSMGLGSSCHLSLPK RAEALLCSRKATVVRDLVAVRMAEEQETOLCKLPAPQSPHPCV NNTYKSAQHSQALLRGLLALRDSGILFDVVLVVEGRHIEAHRIL LAASCDYFKGMFAGGLKEMEQUEEVLHGVSYNAMCQILHFIYTS ELELSLSNVQETLVAACQLQIPEIIHFCCDFLMSWVDEENILDV YRLAELFDLSRLTEQLDITYILKNFVAFSRTDKYRQLPLEKVYSL LSSNRLEVSCETEVEGALLYHSLEQVQADQISLHEFPKLET VRFPLEAEVLQRLHDKLDPSPLRDTVASALMYHRNESLQPSLQ SPQTELRSDFQC VVGFGGIHSTPS\MSSATRPKYLNPLLGWKKH FTASLAPRMSNQGI AVLNNFVYLIGDNNVQGFRAESRCWRYDP RHRNWFQIQSLQOEHADLSVCVVGRIYIYAVAGRDYHNDLNAVER YDPATNSWAYVAPLKREVIYAHAGATLEGKMYITCGRKGRIT
6703	45	1244	GVGPRAAAMPLELELCPRWVGQHPCFIIAEIGONHQGDLDVA KRMIRMAKECGADCAKFOKSELEFKFNKALERPFTSKHSGKT YGEHKRHLEFSDQYRELQRYAEVGIFFTASGMDMAVEFLHE LNVPPFKVGS GDTNNFPYLEKTAK/TRGWHSVL RDVCGVQLNDE TSSWDVLGRVRTSKEKVLMLVLVDYSGRPMVISSGMQSMDTMKQ VYQIVKPLNPNFCFLQCTSA YPLQPEDVNLRVISEYQKLPDIP IGYSGHETGIAISVAVALGAKVLERHITLDKTWKGSDHSASLE PGELAEVRSVRLVERALGSP TKQLLPCEMACNEKLGKSVVAKV KIPEGTILTMDLTVKVCEPKGYPPEDIFNLVGGKVLVTVEEDD TIMEE
6704	82	1007	TMNTRNRVNSGLGASPASRPTRPDPDPSGRQELSPVEDOREG LEAAPKGPSRESVVHAGQRRTSAYTLIAPNINRRNB IQRIAEQE LANLEKWKXQNRAKPVHLVPRRLGGSQSETEVRQKQQLQLMQSK YKQKLKREESVRIKKEAEAEELQMKAIQREKSNKLEEKRLQE NLRREAFREHQYKTAEFL/RQTEHRIARQKCLSKCCLWPTILN MGQKLGLQ\DSLKAEENRKLQKMKDEQHQSLELELKROOQEQE RAKIHQTEHRRVNNAFLDRLOGKSQPGGLEQSGGCWNMNSGNSW GI
6705	2	786	RLCRNSARVPCGWSASRS LGEGAGFIGPLRGPHPRAGGTGTSFT SYKRKGGIMSTIAAFYGGKSLITVATGFLGKELMEKLFRTSPD LKVIYILVRPKAGQTLQHRVFQILD SKLFEKVI EVRPNVHEKIR AIYADLNQNDFAISKEDMQELLSCTNII FHCAATVRFDDTLRHA VQLNVTATROLLMASOMPKEAFIHISTAYSINCNLKHIDEVIY PCPVEPKKIIDSLW\LDDAII DEITPKLIRDWPNIYTYTK
6706	130	531	PTHSSSSHSQEMLGKLNMLRNDGHFCDITIRVQDKIFRAHKVVL AACSDFFRTKLVGQAEDENKNVLDLHHVTVTGFIPLLEYAYTAT LSINTENIIDVLAAS YMQMFSVASTCSEFMKSSILWNTPN SQP EK

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6707	2233	1343	YWSGIGYELQHFHWRKFHFEKKGPPSTCQBRLYESRERWPCIS* GMVVVGWTAVNGSW*GGQLRCVCVCTSHSSDSTRSSORASKCHS FFILSQ*KT*SSWENWFAKYSRIYSYGHSCSKGRGD*DFK*NV SOAR*SRFCGLCNPCGHCGLDINLRGGSSPWTDKHSCVHNLLC NRRVFSLLCEGPGHCYOGAVCREACAAASPLGDSAAEPHRLCEH TD*LPK*GPYIQHFHCDNLCILYNISFNLFSYSF*GVARYA C*RCHWYFEWLLYNHCGDILVACL*RRQL*SSQ
6708	115	1729	TVGSWSRSRSPVGRQLLLTGRGAQAAGSPQGGMALQVELVFT GEIIRVVHPRPCKLALGSDGVRVTMESALTARDRVGVQDFVLL ENFTSEAFENLRRFRFENLIYTYIGPVLVSVPYRDIQIYSR QHMERIRGVSYFEEPPHLLAVADTVYRALRTERRDQAVMISVES GAGKTDATKRLLQLYAETCPAPQGGAVRDRLLQSNPVLAEFGN AKTLRNDNSSRFGKYMDOVFDFKGA*VGGHILSYLLEKSRVVHQ NHGERNFHIFYQLLEGCEETLRLRLGLERNPQSYLYLVKQCAK VSSINDKSDWKVVRKALTVIDFTEDEVEDLLSIAASVLHLGNH FAANESNAQVTTEKQKYLTRLSSVEGSTLREALTHRKIIAKG EELLSPLNLQAAAYARDALAKAVYSRTFTLVGKINKSLASKDV ESPNSRSTTVLGLLLIYGFEVFOHNSFEQFCINYNCKKLQQLFI ELTLKSEQEEYEAGIAWEPVQYFNNKIIICDLVEZKFKGII\SI LDE\ECLRPE
6709	3	854	PPHEHLFPSCGERGPFSLVSRRLGPGKMGKKKKEKKGRGAEK TAAKMEKKVSKRSRKEEDLEALIAHFQTLDAKRTQTVELPCPP PSPRLNASLSVHPKDELILFGGEYFNGQRTFLYNELVYVNIK DTWTKVDIPSPPPRRCAHQAVVVPQGGQLWVFGGEFASPNSEQ FYHYKDLWVLHATKTWEQVKSTGGPSGRSGHRMVAKRQLILF GGFHESTRDYIYNDVYAFNLDFTWSKLSPSGTGPTFRSGCQ\ IPSLPRAASSVYGGYSKQVRKDVDKGTRHSDMF
6710	158	980	RHKMTNYRVSSSGRAARKMLALMGPAFIAAIGYIDPGNFATN IQAGASFCYQLLWVVVWVAMMLIQLLSAKLGIATGKNLAEQI RDHYPRPVVWFYVQAEIJAMATDLAEFIGAAIGFKLILGVSL QGAULTGIATFLILMLQRRGQKPLEKVIGGLLLFVAAAYIVELI FSQPNLAQLGKGMVIPSLLPTSEAVFLAAGVL\GATIMPHVI/YI WHSSLTQHLHGGSRQORYSATKWDVAIAMTIAGFVNLAIMATAA SELNFYGHGTGA
6711	3	347	VTECKTMTCKMSQLERNI*TMINTLHHYSVKLGHPTLIHGEPK ELVRTDLHNILMKENKNDQAI*HIMEDLDTNAHMQIIFKELIML MANLTWSYHDNMHDADYGPQOHRPG
6712	118	576	PHGQKRTRYPQVRAPGQOPOAQLAMALCLKQVFAKDKTFRPRKR FEPGTQRFELYKKAQASLKSGLDLRSVVRLLPPGENIDDWIAVHV VDFFNRLINLIYGTMAERCS*TSFVMMAGGPRIEYRQDERQYRR PAXLSAPRYMALLMDWIESLI
6713	2485	3	QARGSDSEGEFEIQAEDDARARKLGPRPLPTFPTSECTSDVE PDREMVRANKKKKKSGGFQSMGLSYPVFKGIMKKGYKVPTPI QRKTIPIVILDGKDVVAMARTGSGKTACFLPMFERLKTHSAQTG ARALILSPTRELALQTLKFTKELGKFTGLKTALILGGDRMEDQF AALHENPDIIIATPGRLVHVAVEMSLKLSQSVYVVFDEADRLFE MGFAEQLOEIIARI.PGGHQTVLFSATLPKLLVEPARAGLTEPVL IRLDVDTKLEQLKTSFFLVREDTKAAVLLHLLHNVRPQDQTV VFVATKHHAELYTELLTQVRVCAHIYSALDPTARKINLAKFTL GKCSLTIIVTDLAARGLDIPLLDNVINYSFPAKGKFLHRVGRVA RAGRSGTAYSLVAPDEIPYLLDLHLFLGRSLTLARPLKEPSGVA GVDGMLGRVPQSVDDEEDSGLSTLEASLELRGLARVADNAQQQ YVRSRPAPSPESI KRAKENDLVGLGLHPLFSSRFEEELQRLRL VDSIKNYRSRATIFEINASSRDLCSQVMRAKQKQDKAIAARFQQ GQGRQEQEQGPVGPAPSRPALQEKQPEKEEEEEAGESVEDIFS EVVGRKRQSRGPNRGAKRREARQRDQEPYIPYRPKDFDSERG

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			LSISGEGGAFEQQAACAVLDLMGDEAQNLTGRQQLKWRDKKKR FVGQSGQEDKKIKTESGRYISSYKRDLYQKWKQKQKID*S*L GRRRGILTRRRPRTEEVGEARPLAQAGCIPGPHAPRHPLOAESAL LELTKQQLKQRRRAOKAALSQRWWPQAALCPQ
6714	169	1416	NNCQELLPPPPAPMAHPSGGAPAGAAMPGPQYCVCKVELSVS QONLLDRDVTSKSDPFCVLFTENNGRWIEYDRTEAINNLPF SKKFVLDYHFEEVQKLKFDQDKSSMRLEHDFLGQFSCSLG TIVSSKKITRPLLLNDKPKAGGLITIAAQLSDNRVITLSLAG RRLDKDLFGKSDPFLEYFKPGDDGKMWLVERTEVIKYTLDPVW KPFTVPLVSLCDGDMEKPIQVMCYDYDNDGGHDFIGEFQTSVSQ MCEARDSVPLEFECINPKQKQKKNYKNSGIIILRSCKINRDS FLDYILGGCQLMFTVGIDFTASNGNPLDPSSLHYINPMGTNEYL SAINAVGQIIQDYDSKMFPAFGAQLPPDWKVSHEFAINFNP TNPFCSGVDGIAQAYSACL
6715	32	493	GPAGAESGLHCLPATVQALAGAAHSPHGGQPPRRGPLIGSGMP GKPKHLGVPNGRMVLAVSDGELSSTTGPGQGGEGRGSLSIHS PSGPSSPFPTEEQPVASWALSFERLLQDPLGLAYFTEFLKKEFS AENVTFWACERFQQIPASDT
6716	1	176	CAGGPAPRSFCSEEPRAALERDKMSARAAAAKSTAMEETAIWEQ HTVTLHRVSLCCSK
6717	115	896	LFAMSGFENLNTDFYQTSYSIDDOSQSYDYGSGGPYSKYAG YDYSQOGRFVPPDMMPQPPYTGQIYQPTQAYTPASPQPFYGN FEDEPPLLEELGINFDHIWQKTLTVLHPLKVDGSIIMNETDLA PMVFLAFGATLLLAGKIQFGYVYGISAIGCLGMFCLNLMSTM GVSPGCVASVLGYCLLPMILLSSFAVIFSLQGMVGIIITAGIIG WCSFSASKIFISALAMEGQQLLVAYPCALLYGVFALISVF
6718	290	599	KQSTVPGTILPSLKHNSGLCKFPETGGKMTTFKEGLTFKDVA VIFTEEEELGLDVPQVNLQYQDVMLENFRNLLSVGHHPFKHDVFL LEKEKKLDIMKTATQ
6719	1	691	PTREEQDREDGCKCHKMEMNPISGNLNCDFIAMSQCSSDHGCE DLSDDDDKIEKPNPMKDSASQDNGLSRKISRKRVCSSDSDSL QVVKSSKARTGLLRITRCAATAANKIKLMSDVEDVSLNENVT RSKNGRKKPLHLACTTAKKKLSDEGSHCEVPSEQACEGKPP DPDSEGSTKVLQALNGSDSEDMNLSEHKHRTNIHKIDAPSK RKSSSVTSSC
6720	3	822	HEVAEEAGGTVYPQRCMPGTRFQHVIEPTEPGKWELTGVEAA VPITEKSNPLTQDLKADAENIVRLQGQDAEIFQEEGQALSTY QRLYSESILTMVQVAGKVQEVLEKPDGGLVVLGGGTSGRMAF LMSVSNQLMKGLGQKPLYTYLIAGGDRSVVASREGTEDSALHG IEELKKVAAGKKRVIVIGISVGLSAPFVAGQMDCCMNTAVFLP VLVGFPNPMARHPFPFPRILRSLTVFPPLRAPHYQITSLLFMS SVVTLISE
6721	3	822	HEVAEEAGGTVYPQRCMPGTRFQHVIEPTEPGKWELTGVEAA VPITEKSNPLTQDLKADAENIVRLQGQDAEIFQEEGQALSTY QRLYSESILTMVQVAGKVQEVLEKPDGGLVVLGGGTSGRMAF LMSVSNQLMKGLGQKPLYTYLIAGGDRSVVASREGTEDSALHG IEELKKVAAGKKRVIVIGISVGLSAPFVAGQMDCCMNTAVFLP VLVGFPNPMARHPFPFPRILRSLTVFPPLRAPHYQITSLLFMS SVVTLISE
6722	1	390	RSWSKRTWQALPMVFLFLFLCGTPQAADNMQAIYVALGEAVE LPCPSPSTLHGDEHLSWFCSPAAGSFITLVAQVQVGRPADPGK PGRESRLRLGNYSWLWEGSKEEDAGRYWCAVLGQHNYQNW
6723	173	659	VCQYCTARMADFGISAGQFVAVVWDKSSPVEALKGLVDKLOALT GNEGRVSVENIKQLLQSAHKESSFDIILSGLVPGSTTLHSAEIL AETARILRPGGCLFLKEPVETAVDNNSKVKTASKLCSALTLSGL

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			VEVKELQREPLTPEEVQSVREHLGHESDNL
6724	173	659	VCQYCTAFMADFGISAGQFVAVVWDKSEFVEALKGLVDKLCALT GNEGRVSVENIKQLQSAHKESSEFDIILSGLVPGSTTLHSAEIL AETIARILRPGGCLFLKEPVETAVDNNKVKTASKLCSALTLSGL VEVKELQREPLTPEEVQSVREHLGHESDNL
6725	356	722	RRRTPPVILATMDDDLMLALRLQEEWNLOEAERDHAQESLSLVD ASWELVDFTPDLQALFVQFNDQFFWGLAEAVEVKWSVRMTLCAG ICSYEGKGMCSIRLSEPLLKLRPRKDLVEVFFV
6726	98	714	HLQKMERKINRRKEKEKEYEGKHSLEDTDGKNCKSTLMTLNVG GYLYITQKQTLTKYPDTFLEGIVNGKILCPFDADGHYFIDRDGL LFRHVLNFRNGELLPEGFRENQLLAQEAFFQKGLAEAEVKS RWEKEQLTPRETTFLEITDNHDSQGLRIFCNAPDFISKISRI VLVSKSRLDGFPPEPSSISNIIQPKYFIK
6727	1	831	FRGMGDERPHYGKHGTPOKYDPTFKGPIYNRGCTDIICCVFLL LAIVGYVAVGIIAWTHGDPKVIYPTDSRGEFCQKGTKNENKP YLFYFNIVKSCASPLVLEFQCPTPQICVEKCPDRYLTYNARSS RDFEYKQFCVPGFKNNKGVAEVLDRDGCFAVLIPSKPLARRCF PAIHAYKCVLMVGNETTYEDGHGSRKNIIDLVEGAKKANGVLEA RQLAMRIFEDYTVSWYWDIISLGIAMAMSLFIILLRFLAGIMG RGMIMGILVLGY
6728	486	935	FCSSWLRLSLADSSLSWKMFVLVLTGGIASGKSSVIQVFQOLGCA VIDVDVMAFHVVQPGYPARRIVEVFGTEVLLLENGDINRKVLGD LIFNQPDRLQLNATHPEIRKEMMKETFKYFLREPRTSPRGKK HVPSALKEADSLMRDT
6729	259	1191	VGLTGAQSGRTASMGDRQRAVAGPALRRWLLGLTVTVGLAQSV LAGVKKFDVPCGGRDCSGGCOCYPEKGGRGQPGPVGPOGYNGPP GLQGFPGLOGRKGDKGERGAPVGTGPKGVARGVSGFPGADGI PGHPGOGGFRGPGYDGCNGTQDSDGPGPGSEGFTGPPGPGQ PKGQKGEFYALPKEERDRYRGEPEGLVGFQGGPPGRPGHVGOM GPVGAAGRFGPPGPPGKQOQNRGLGFYGVKGEKGDVQPGPN GIPSDTLHPILAPTGVTFHPDQYKGEKSEGEPIRGISLKGEE GIM
6730	784	1015	NMVDYEEVLGLORYASPEDIKKAYHKVALKWHDPKNPENKEEAE RKFKVEAAEAYEVLSDNDEKRDIDKYGTEGLNEF
6731	1	446	GIRKRLHGAVVPRVEVGCPWETRESEGVHLERPTSPKNNDEGS LDIYAGLDSAVSDSASKSCVPSRNCIDLVEEILTEECTAKEATY NDLQVEYGGCQLQMKELMKFKKEIQTONFSLINENQSLKKNISA LIK TARVEINRKDEEI
6732	102	1205	GRWQRRPPPPSPPLNCLQPGGSDPQQLTLRHCLSHSPQDTPW AQRQVCYTAATTOAAPATRNCLPDHSGHRPTPPSRHRRHROEN LGSIKPSSRSTKATSTTMAGDGRRAEAVREGWGVYVTPRPIRE GRRLAPQNGGSSDAPAYRTPPSRQGRREVRFSDPEPEVYGDPE PLVAKERSPVGKRTRLEEFPSDSAKEEVRESAYYLSRQRQPR PQETEEMKTRTTLRQQHSEQPPLQSPVMTRRGLRDSHSSSE DEASSQTLDSQTSKKTVRSIQEAPVSEDLVIRLRPPPLYRPR YEATSVQKQVNFSEEGETEEDQDSSHSSVTTVKARSRDSDESG DKTTRSSSQYIESFW
6733	613	1311	RSCRQVGMRSRNOGGESASDGHISCPKPSIGNAGEKSLSEDAK KKKSNRKEDDVMAAGTVKRHLKTSGECEKTKKSLSELSKEDLI QLLSIMEGELQAREDVIHMLKTEKTKPEVLEAHYGSAPKVLRL VLHRDAILAQEKSIGEDVYEKPISELDRLLEEKOKETYRRMLEQL LLAEKCHRRTVYELENEKHKCTDYMNKSDDFTNLLEQERERLKK LLEQEKAYQARKE
6734	189	551	SAAMFPVFGSCFOELQEKNSLELVSFEEVAVHFTWEEWQDLDL AQRTLRYRDMLETYSLSVSLGHCITKPEMIFKLEQGAEPWIVEE

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6735	280	558	TLNLRSLSGGSKKQVFSGICHRSLVELCEVHLV KSRKAGVTKMSNPFLLKQVFNKDKTFRI KRFEPGTQRFELHKKA QASLNAGLDLRLAVOLPPGEDLNDWVAVHVVDFFNRVNLVIYGTI XDGCT
6736	195	808	MNYELNFKREMPNISKSLGLTNLNFLLKRLSSVLEPLITDYVYFEN SSNPFYLIRRIEELNKTASGNVEAKVVCFYRRRDISNTLIMLAD KHAKEIEESETTVEADLTDKQKHQLKRELFLSRQYESLPATH IRGKCSVALLNETESVLSYLDKEDTFYSLVYDPSLKTLLACKG EIRVGPRYQADIPMLLEGTFPCVFAVL
6737	150	1209	PVIMPLHFSPGDIVFSCCVSSSPKLRANNAHSRLSYRFDLDS REDTGCNLQHI SDRENIDDLNMEFNPSEHPRASTIFLSKSQTDV REKRKSLFINHHPPGQIARKYSSCSSTIFLDDSTVSQPNLKYTIK CVLAIIYHIKNRDPDGRMLLDIFDENLHPLSKSEVPDPYDKHN FEQKQIYRFVRTLFSAAQLTAECAIVTLVYLERLLTYAEIDICP ANWKRIVLGAILLASKVWDDQAVWNVVDYCOIKDITVEDMNELE RQFLELLQFNINVPSSVYAKYFDFLRSLAEANNLSFPLEPLSRE RAHKLEAISRLCEDKYKDLRSARKRSASADNLTLFRWSPAIIS
6738	148	653	CACAEQPARAEVGAATAPVRWASGEMFSGSLAVFLAVLVLL WGAPWTHGRRSNVRVITDENWRELLECFWMEFYAPWCPACONL QPEWESFAEWGEDLEVNIKVDVTEQPGLSGRFIITALPTIYHC KDGEFRRYQGPRTKKDFINFISDKENKSEIEPVSSWF
6739	3	631	SWPDMAEEEVAKLEKHLMLLRQEYVKLCKKLAETEKRCALLAQ ANKSSSESFISRLLAIVADLYEQEYSDLKIKVGDRIHSAHKF VLAARSDSWSLANLSSTKELDLSDANPEVTMTLRWIYTDLEF REDDVFLTELMKLANRFQLQLLRERCEKGVMSLVNVRNCIRFYQ TAEELNASTLMNYCAEIIASHWVSEVEGVNKAL
6740	3	631	SWPDMAEEEVAKLEKHLMLLRQEYVKLCKKLAETEKRCALLAQ ANKSSSESFISRLLAIVADLYEQEYSDLKIKVGDRIHSAHKF VLAARSDSWSLANLSSTKELDLSDANPEVTMTLRWIYTDLEF REDDVFLTELMKLANRFQLQLLRERCEKGVMSLVNVRNCIRFYQ TAEELNASTLMNYCAEIIASHWVSEVEGVNKAL
6741	141	960	PLTLPFSSRARAGHTMNTSPGTVGSDPVIATAGYDHTVRFWQA HSGICTRTVQHDSQVNALEVTPDRSMIAAAVQPVSLGYQHIRM YDLNSNNPNPIISYDGVNKNIASVGFHEDGRWMTGGEDCTARI WDLRSRNLCQCORIFQVNAPINCVCLHPNOAELIVGDQSGAIIHW DLKTDHNEQLIPEPEVSITSAHIDPDASYMAAVNSTLVPPFSCLL PLAIGILOEGEFESLARRGLLFLACQGNQYVWNLTTGGIGDEVTO LIPKTKIP
6742	141	960	PLTLPFSSRARAGHTMNTSPGTVGSDPVIATAGYDHTVRFWQA HSGICTRTVQHDSQVNALEVTPDRSMIAAAVQPVSLGYQHIRM YDLNSNNPNPIISYDGVNKNIASVGFHEDGRWMTGGEDCTARI WDLRSRNLCQCORIFQVNAPINCVCLHPNOAELIVGDQSGAIIHW DLKTDHNEQLIPEPEVSITSAHIDPDASYMAAVNSTLVPPFSCLL PLAIGILOEGEFESLARRGLLFLACQGNQYVWNLTTGGIGDEVTO LIPKTKIP
6743	1	412	MHSTQDKSLHLEGDPNPSAAPTSTCAPKPKRISISKQLASVK ALRKCSDLKAIATTAIFRNSSDSGKLEKAIKDLLQTQFRN FAEQETKPKYREILSELDEHTENKLDLDFDMILLLSITVMSDL LQNI
6744	95	1343	RTPARNRCAGCEVLSRFSSPNKASSFALQSAGGGLPAVRALRRD RQXVSTVGYGMDEVEQDQHEARKELFDSFDTTGTGSLGQEELT DLCHMLSLEEVAPVLQQTLLQDNLLGRVHFQDFKEALILILSRT LSNEEHFQEPDCSLEAQPKYVRGGKRYGARSLPEFQESVEEFPE VTVIEPLDEEARPSHIPAGDCSEHWKTORSEYEAEQQLRFWNP DDLNASQSGSSPPQDWIEEKLQEVCEDLGITRDGHLNRKKLVSI

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			CEQYGLQNV DGE LEEVFFENLDPDGTMSVEDFFYGLFKNGKSLT PSASTPYRQLKRHLSMQSFDESGRRTTSSAMTSTIGFRVFSCL DDGMGHASVERILDTWQEEGIENSQELKALDPGLDGNINLTEL TLALENELLVTKNSIHQACI
6745	1	588	TFRDQGW AQRRRWLLGCASWESWEAAIAAGPGLPSSTARQQNNP AAGTECF AAVWARGTAMGSVLSSTDSCKSAPASATARALERRDP ELPVTSDCAVCLEVLHQPVTRTCGEVFCRSCIATSLKNNKWT PYCRAYLPSEGVPATDVAKRMKSEYKNCAECDTLVCLSEMHAI RTCKYIDKYGPLOLEETA
6746	110	492	GATGAMAESAPARHRRRRTTSLTSSLPQATEKSSYFQTETI SLWTVVAALQAVEKKMESQAARLQSLGRTGTAEKKLADCEKMA VEFGNOLGKWAVALGTLLEQYGLLQRRLENVENLLNRN
6747	247	484	EAVTFKDVAVVPTTEELGLLDLAQRKLYRDVMLENFRNLLSVGH QPFHRDTFHLREEKFWMMDIATQREGNSVYAGVC
6748	201	665	MTTFKEAVTFKDVAVVPTTEELGLLDPAQRKLYRDVMLENFRN LSVGNQPFHQDTFHLGKEKFWKMTTSQREGNSGGKIQIEMET VPEAGPHEEWSQQIWEQIASDLTRSQNSIRNSSQFPKEGDVPC QTEARLSISXVQOXPYRCNECKQ
6749	95	719	RREVKGGDGVCPRARGSPQSQQFPSCAGGGEGLOQSGEALDGM SAGGPPCAAGGGPGGASCSVGPAGGVSMFRWLEVEKEFDKAF VDVDLLGEIDPDQADITYEGRQKMTSLSSCFAQLCHKAQSVSQ INHLEAQLVDLKSLETTQAEKVLEKEVHDQLQLHSIQQLQ HAKTGQSADSGTIKALSGSPVEELERELKAN
6750	3	428	SCESRRPGAKWVWAGALPRDTTGLGSEQSPGDVAQSNRATMGT TAPGPIHLEELCDCKLMEFLCNMDNKLVLWLEEQEEAERMFTR EFSKEPELMPKTPSOKNRRKKRRI SYVDENRDPIRRRLSRKS RSSQLSSRR
6751	152	1417	PTKATEMAGASVKVAVRVRFNSREMSRDSKCI IQMSGSTTIV NPKQPKETPKSFSDYSYWSHTSPEDINYASQKQVYRDI GEML QHA FEGYNVICI FAYGQTGAGKSYTMMGKOEKQDQGGIIPQLCEDL FSRINDTTNDNMSYSVEVSMEIYCERVRDLLNPKNGNLRVRE HPLLGPYVEDLSKLAVTSYNDIQDLMDSGNKARTVAATNMNETS SRSHAVFNIIFTOKRHDAETNITEKVKSLVLDLAGSERADST GAKGTRLKEGANINKSLTTLGKVISALAEMDSGPNKNNKKKKT FIPYRDSVLTWLLRENLGNSRTAMVAALSPADINYDETSLTLR YADRAKQIRCNVINEDPNNKLIRELKDEVTRLRLDLLYAQGLGD ITDMTNALVGMSPSSLSALSSRN
6752	24	1834	RNCVPPPGCYRSRVKFSHSDIKMQYSHCEHLLERLNKOREAGFL CDCTJ VIGEFQFKAHRNVLASFSEYFGAIYRSTSENNVFLDOSQ VKADGFOKLLEFIYTGTLNLDSDNVKEIHOAADYLVKEEVVTKC KIKMEDFAFIANPSSTEISSITGNIELNQOTCLLTLDYNNREK SEVSTDLIQANPKQALAKKSSQTKKKKKAFNSPKTGQNKTVQY PSDILENASVELFLDANKLPTPVVEQVAQINDNSELELTSVEN TFPAQDVIHVTVTKRKGKSGPNCALKEHSMNSIASVKSPYEAE NSGEELDQRYSKAKPMCNTCGKVFSEASSLRHMR IHKGVPYV CHLCGKAFTQCNQLKTHVRTHTEGKPKCELCDKGFAQKCOLVF HSRMHGHGEKFYKCDVCNLQFATSSNLKIHARKHSGEKPYVCDR CGQRFQAQSTLTYHVRRTHTGEKPYVCDTCGKAFVSSSLI THSR KHTGEKPFICELCGNSYTDIKNLKHKTKVHSGADKTLDSAEED HTLSEQDSIQKSPLSETMDVKPSDMLPLALPLGTEDHHMLLPV TDTQSPSTDLLRSTVNGYSEPQLIFLQQLY
6753	2	1305	VPSLPYPQKVVAHTEFTTSSDSETANGIAKPDVPMPGGEEKAS PFGIKLRRNTNYSLRPNCDQQAQKQKKRHSSTGDSADAGPPAAG SARGEKEMEGVALKHGSPSPQERKQAPSTRRDSAEPSSSRSVPV AHPGPPFPASSQTPAPEHDKAANKMPLAQKPALAPKPTSPPPAS

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			PLSKLSRPYLVELLSRRAGRDPDEPSEPSKEDQESSDRRPFSP GPEERKGGQRDEEEETERKPASPFLPATQOEKPSQTPEAGRKE KPMLOSRHSLDGSKLTEKVETAQPLWITLALQKOKGFREQQATR EERKQAREAKQAEKLSKENVSQVQPGSSVSRAAGSLHKSTALP EEXRPETAVSRLERREOLKANTLPTSVTVISYSSPAAPLVKE VSKRFSSPDDAPVSSEPAWLALAKRKAKAWDCPLIHK
6754	2	413	FVRRRRRLGGPEVNTMSSLHKSRIADFQVVKKEPSIALEKIRE LSFSGIPCEGGLRCLCWKILLNLYPLERASSTSLAKQRELYAQ FLREMIIOPGIAKANMGVSREDVTFEDHPLNPNPDSRWNTYFKD NEVLL
6755	296	1343	PGLQLOVALEADWFLDMPGGRRGPSRQOLERSALPSLQTLVGGG CGNGTGLNRNGSAIGLPVPPITALITPGVVRHCQIFDLPVDSG LLFEFLFFIYLLVALFIQYINITYKTVMWYPYNHPASCTSLNFHL IDYHLAAPTVMARRLVWALISEATKAGASMIHYMVLISARL VLLTLCGWVLCWTLVNLFRSHSVLNLFLGYPGVYVPLCCFHQ DSRAHLLLDYNYVVQHEAVEESASTVGGLAISKDFLSLLLES KEQFNATPIPTHSCFLSPDLIRNEVECLKADFNRHRIKEVLFNS LFSAYYVAFPLCFVKVSGYLTFMCFDLDCVNYINWVFLV
6756	180	754	TERALGSLPLSIPVSWGSLRTLYQQQPLRFKVLCCQTRVQCHD LRSIQPPGPKQSFCLRLVGLQTCATTGRLDLTCKELIILTE REAQKRKKRKEKESGMALTQGPLTFRDVAIEFSQEWKSLDPVQ KALYDWMLENYRNLVFLGKDNFALEVKICFRVFLYFLCCLSWE PFHYLTETEALLTHK
6757	2	459	NSRVEAPEAHSKESQSDAMRKHLSSWWLATVCMFLFSHLSAVQ TRGIKHRIKWNKALPSTAQITEAQVAENRPGAFIKQGRKLDID FGABGNRYEANYWQFPDGIHYNGCSEANVKEAFVTGCINATQ AANQCEFCXPDNKLHQQVLW
6758	1	1008	ASGPPLGRRFRDRAPWLPARLLRGVLAVWVSLSALGPGSFCRR RVPSLAQLGHSEAAPSPDDVWRVSRVDRCPEDRAWPPPPPS LPPSFRNMANNSPALTGNSQPOHAAAAACQOQCGGGGATK PAVSGKQGNVPLWGNKTMNLNPMILTNILESSPYFKVQLYELK TYHEVVDEIYFKVTHVEPWEKGRKTAGQTMCGGVRGVGTGGI VSTAFCLLYKLFTLKLTRKQVMGLITHDTSFYIRALGFMYIRYT OPPTDLWDWFESFLDDEEDLDVKAGGCGVMTI GEMLRSLTKLE WFSTLFPRI PVPVQKNIDQIKTRPKI
6759	1	513	RKHNFHSLDGTSTRAFHPTGLPLLSSPVPRKTSQSGCFDLDS LLHLKSFSSRSFRPCLNIEDDPDIHEKPFLESAPPTSLSLLG NFESVLNRYRFDPLGIVDGTAEVGAAGAFCTHLLTPVEVSFY SVSDDNAPSPYMGVITLES LGKRGYRVPSSGTIQVVCVL
6760	239	606	VL SKKKGLSAEEKRTRMEIFSETKDVFLKDLKIAPKKEGKIT AMSVKEVLOSVDGMDVCERIGTSNYWAFPSKALHARKHKL VLESQLESGSQHASLQKSIKAKIGRCETEERT
6761	29	1733	ERTLRGLEVAAPSVDADAASRRGRCCCLHCTQTQVAQDCPS SSSSVQRCESLFSQSLHTMTSKKLVSAGCADDALAGLVACNP NLCLLQGRVALRSLLSLKGRVALLGGGSCHEPAHAGFIGKG MLTGVIAGAVTSPAVGSILAAIRAVAQAGTVGTLIIKNTYTD RLNFGALAREQARAEGIPVEMVVGDDSAFTVLKAGRRGLCGTV LIEKVAGALAEAGVGLLEEIAKQVNVVTKAMGT LGVSLSSCSVPG SKPTFELSADVELGLGIGHGAGVRRIKMATADEIVKMLDHT NTTNASHVPVQPGSSVMMVNNLGGLSFLGLGIADATVRSLEG RGVKIARALVGTFMSALEMPGISLTLVDEPLKLIDAEITFAA AWPNVAAVSITGRKRSRVAPAEQEPDSTAAGGSASKRMALVL ERVCSLLGLEEHLNLDRAAGDCGCTTHSRAARAIQEWLKEG PPFASPAQLLSKLSVLLLEKMGSSGALYGLFLTAQAQPLKAKT SLFAWSAAMDAGLEAMQYKGAAPGDRMTLDSLNAAGQBL

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6762	3	613	ASTISWRLCVAGAEARRPVPVAGERAGGGAMWFMVLLSWLSLFI QVAFITLAVAAGLYYLAELIEEYTVATSRIIKYMIWFSTAVLIG LYVFERFPTSMIGVGLFTNLVYFGLLQTFPFIIMLTSPNFILSCG LVVNNHYLAFQFFAEYYYPFSEVLAYFTFCLWIIPFAFFVSLSA GENVLPSTMQPGDDVVSNYFTKGRGK
6763	2	760	SGDFPFGRRFRGCCCVRPAGAGHELGGHWMNSAPRLVSETAE RKQEQKTCTEAADSGAVGARRFLCLYLGGFLDLFGVSMVVP LLSLHVKS LGASPTVAGIVGSSYGILQLFSTLVGCHSDVVGRR SSLLACILLSALGYLLGAATNVFLFVLARVPAGIFKHTLSISN ALLSDVVFEEKERPLVIGHNTASGVGFILGPVVGYYITELEDGF YLTAFCIFLVFILNAGLVWFFPRREAKPGSTE
6764	80	436	LKKMDTMMLSVRNLFELVRRVEILSEGNEVQFIQLAKDFEDFR KKWQRTDHELKGYKDLLMKAETERSALOVKLLKHARNQVDVEIKR RQRAEADCEKLERQIQLIREMLMCDTSGSIO
6765	3	550	ARYSRVDHFCRRRCRAVARAPRLLQFPSCFSRHFLAACVARWL RGSVLVSEALSGSAMDGIVTEVAVGVKRGSDLLSGSVLSSPNS NMSSMVVTANGNDSKKFKGEDKMDGAPSRVLHRIKRLPGEVTE VIALGLPFGKVTNIMMLKGNQAFLELATEEAAITNGNYYSAVT PFLRNQ
6766	3	1287	EGGSFKASLTWLPGLGEMKLHCEVEVISRHLPALGLRNRGKGV AVLSLCQOTSRSQPPVAFLLISTLKKDKGRTRYELRENIEQFFT KFVDEGKATVRLKEPPVDICLSKANSSSLKGFSLAMRLAHRCN VDTVPSTLTVPKTEFENFKTKMVITSKKDYPLSKNFFYSLEHL QTSYCGLVVRDMRLCLKSLRKLDSLHNHKKLPATIGDLIHLQ ELNLDNHLBSFSVALCHSTLQKSLWSLDLSKNKIKALPVQFCQ LQELKNLKLDDNELIQFPCKIGQLINLRFLSAARNKLPFLPSEF RNLSLEYLDLFGNTFEQPKVLPVILQAPLTLESSARTILHNR IPYGSIIIPPHLCQDLDTAKICVCGRFCLNSFIQGTMTMLHSV AHTVVLVDNLGGTEAPIISYFCSLGCYVNSSDI
6767	336	919	APMICLCSSDLQFRYKEAFLRDRGLQIGYCSVDDPRMKHFLNV GRLOSDNEYKKDFAKRSRQFHSSTDOPLGLOAKRSQQLASDVHY ROPLPQPTCDPEOLGRHAQKAHOLQSDVKYKSDNLTRGVGT PPGSYKVMARRAAELANARGLGLOGAYRGAEAVEAGDHQSGEV NPDATEILHVKKKKALL
6768	2	363	PGSTISCYLLSEGLPLCMQVACGEEKHRAPTMKTLRARFKKTE LRLSPTDLGSCPPCGPCPIPKPAARGRRQSDWGKSDERLLQAV ENNDAPRVAALIAKGLVPTKLDPEGKSAFHL
6769	284	396	MSTPDFSTAENNOELANEVSCLKAMLTMLQAMGQAD
6770	1	397	QRNYQVINSSTMAKLHDYKDEVVKRLMTEFNYSVMQVPRVEK ITLNMVGGEAIADKKLLDNAAADLAAISGOKPLITKARKSVAGF KIROGYPICGVTLRGERMWEFFERLITIAVPRIRDFRGLSAKS
6771	3	378	APAGTLAMTGRSVKDVDRYQAVLANLLEEDNKFCADCQSKGPR WASWNIGVFICIRCAGIHRNLGVHISRVKSVNLDQWTQEQIQCM QEMGNGKANRLYEALPETFRRPOIDPYLFWNSLEG
6772	1	1400	AAAFLOGMTVNGFINTVITSL\ERRVDLHSYQSGLIASSYDIAA CLCLTFVSYPFGSG\HKPRWLWGR\VLMTGSLVFPALPHPTAG P**GWKLDAGVRTCPANPR\PVCAG\HTSGLSRYLQVFMGLQFL HGVGATPLYTLGVTYLDENVKSSCSPYIAIFYTAAILGPPAGY LIGGALLNIYTEMGRRELTETESPLVWGANWVFLGSGAAFFT AVPILGYPROLPGSQRYAVMRAEMHQLKSSRGEASNPDFGKT IRDLPLSIWLLKNPTFILLCLAGATEATLITGMSTFSPKFLES QFSLASAEATLFGYLVVPAGGGGTFLGGFFVNKRLRGSAAVIK FCLFCTVVSLLGILVFSLHCPVPMAGVTASYGGSLLPEGHNL TAPCNAACSCQPEHYSVPCGSDGLMYFSLCHAGCPAATETNVDG OKVYRDCSCIPQNLSSGFCHATAGKCTST

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6773	1	630	PWEAPKEHKYKAEHTVVLTVTGEPCHFFFOYHRQLYHKCTHKG RPGPQPWCATTNFDQDQRWGYCLEPKKVKDHCSKHSPCQKGGT CVMMPSGPHCLCPQHLTGNNHCQKCEPQLLRFFHKNEIYWRT EQAAVARCCKGPDACORLASQACRTNPLHGCRCLVEGHRL CHCPVGVTGPFCDVGE*GSGASRRPAPRWDLAR
6774	146	389	LTELSDDQVFLFFILSS/WVPTFLSMDVDGRVIKADSFSKIIS GLRIGFLTGPPLIERVILHIOVSTLHPSTFNQLMISO
6775	104	614	TCPSQLRVLTARGRRAPSPQLWTLVLALIEKWRSHRIIRMNS GRPTEMNLPALYTIPOGEVAMVTDYGAFIGIPGCRKQGLVHRT HMSSCRVDKPSEIVDVGDKVWVKLIGREMKNDRIKVLSMKVVN QCTGKDLDPNNV\SLSKRGGDPSRITLGRRSPLRLS
6776	3	1108	HERHERHEGALSQDALLRISIPLDSNMRPEKCRFFVHPQWLLH LNGTFPNTSDADMEPCVDGKVVYDRISFSSTIVTEWDLVCDQSIL TSVAKFVFMAGMMVGGILGCHLSDRFGRFVLRWCYLQVAIVGT CAALAPTFLIYCSLRFSLGIAAMSLITNTIMLIAEWATHRFQAM GITLGMCPSGIAFMTLAGLAFARDWHILQLVVSVYFVIFLTS SWLLESARWLIINNKP EEGLEKELRKAHRSGMKVARDTLTLEIL KSTMXKELEAAQKKKPFGLERLHMPNICKRISLLPFTKFANFMA YFGLNLHG/LKHLGNVFLQLTLPFQAV/TPPGQLVLHLGHWSG RVSSRGRVNLGLFVLQVW
6777	779	63	CFFHGPWARDCEVRATFAKKQOGSGIISCIASFSPAQPLYACGSY GRSLGLYAWDDGSPLALLGQHGGITHLCTHPDGNRFFSGARKD AELLCDLROSGYPLWSLGREVTNQRIFYDLDPTGQFLVSGST SGAVSVWDTDGPNDGKPEPVLSFLPQKDCITNGVSLHPSLPLG HCLPVSVCLSPTESGGRRRGAGPSLGSPRRHVHLECRQLWWC GGGARLQHP*SPRARKGR
6778	311	805	IQSIIDESRGSIRKKNPANTRLRNLNVP\ETAGDSE/ERSPEEE VOADPRIRASAPKPTSSPFPKGRSPEGEET\DPKVFHHPGP KDKSVAEKN\KGP\SPVSSSEGIKDFFSMKPEWENLNQSNVRMH T\AVRLNEVIVKSRDAKLVLNMPGPPRRNRGDENY
6779	2	535	RALRRQPRLLAANGIEPESMAISEPIKGRKPCVNKEELALKKP MAKCAWKGPREPPODARAEAESPGGASESDQGGHESPPKKKAV AWVSAKNPAPMRKKKVSLSGPVSYVLVDSDEGRKKPVMPKKKPG SKREASDQKAPRGQCPAEATASTERGPKAKPEGSPRRATNESRK V
6780	3	403	HEVNDNKPEININLMSPGKEEISYIFEGDFIDTFVALVRVQDK SGLNGEIVCKLHGHHFKLQKTYENNYLILTATLDREKRSEYS LTVIAEDRGTPSLSTVKHFTVQINDINDNPPHFQSRYEYFVISE K
6781	1	1269	AFTRPVFPPTLQDLSSSKEPSNSLNLPHSNELCSSLVHPELSEVS SNVAPSIPPVMSRPVSSSSISTPLPPNQITVFVTNPIITTSANT SAALPTHLSALMSTVVTMPNAGSKVMVSEGSAAQSNARPQFI TPVFINSSSIIVMKGSGPSTIPAAPLTNSGLMPPSVAVVGPL HIPQNIKFSSAPVPPNALSSSPAPNIQTGRPLVLSRATPVQLP SPPCTSSPVVPSHPPVQVVKELNPDEASPVQNTSADQNTLPSSQ STTMVSPLLTNSPGSSGNRRSPVSSSKGKGVKIDIGQILLTKAC KKVTGSLEKGEQYGADGETEGGLDTPAGLMGTEQLSTELDS KTPTPPAPTLLKMTSSPVGPATASAGPSLPGALPTSVRSTVTT LVPSSELISAVPTTKSNHGGIASESLAG
6782	3	1327	RKPTVIRIPAKPGKCLHEDPQSFPPLPAEKPIGNTFSTVSGKLS NVERTRNLESNHPGQTGGFVVPFRLPPRPVNGKTIPTQPPPTK VPPERPPPKLSATRRSNKKLPFNRSSSDMLQKKQSNLATGLS XAKSQVFNQDPVLPFPKPGHPLYSKYMLSVPHGIANEDI VSO NPGELSCKRGDVLVMLKQ TENNYLECCQGEDTGRVHLSQMKLIT PLDEHLRSRPNPFSPPKAPSHAQKPVDSGAPHAVVLHDFPAEQV

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			DDLNLTSGEIVVLEKIDTDWYRGNCRNQIGIFPANYVKVIIDI PEGNGKRECVSSHCVKGSRCVARFEYIGEOKDELSFSEGEIII LKEYVNEEWAGEVRGTGIFPLNFVEPVEDYPTSGANVLSTKV PLKTKKEDSGNSQVNSLPAEWCEALHSFTAETSDDLFSFKRGDR I
6783	3	1750	SYHHHHAQQSAAASPNLTASQKTVTTTSMITTKTLPLVLKAATA TMPASVVGQRITAMVTAINSQKAVLSTDVONTFVNLOTSSKVT GPGAEAVQIVAKNTVTLOVQATPPQPIKVPQFIPPPRLTPRPNF LPOVRPKPVACNNIPIAPAPPMLAAPOLIQRVMLTKFTPTTL PTSONSIHPVAVNGQTATIARTFMAQLTSIVIATPGTRLAGP QTVLSKPSLEKQTVKSHETETDEKQTESRTITPPAAPKPKREEN POKLAFMVSLGLVTHDHLLEEQSKRQERKRRTTANPVYSGAVFE PERKKSAVTYLNMHPGTRKRGRPPKYNVAVLFGALTPSTPQS SHPDSPENEKTETFTFPAPVQPVSLPSTSDGDIHEDFCVC RKSGQLLMCDTCSR VYHLDCLDPLKTI PKGMWICPRQDOMLK KEEAI PWPGLTALVHSYIAYKAAKEEEKQKLLKWSSDLKQEREQ LEQKVQLSNSISKMEMKNTILARQKEMHSSLEKVKQLIRLIH GIDLSKPVDSSEATVGAISNGPDCTPPANAATSTPAPSPSSQSC TANCNQGEETK
6784	3	1750	SYHHHHAQQSAAASPNLTASQKTVTTTSMITTKTLPLVLKAATA TMPASVVGQRITAMVTAINSQKAVLSTDVONTFVNLOTSSKVT GPGAEAVQIVAKNTVTLOVQATPPQPIKVPQFIPPPRLTPRPNF LPOVRPKPVACNNIPIAPAPPMLAAPOLIQRVMLTKFTPTTL PTSONSIHPVAVNGQTATIARTFMAQLTSIVIATPGTRLAGP QTVLSKPSLEKQTVKSHETETDEKQTESRTITPPAAPKPKREEN POKLAFMVSLGLVTHDHLLEEQSKRQERKRRTTANPVYSGAVFE PERKKSAVTYLNMHPGTRKRGRPPKYNVAVLFGALTPSTPQS SHPDSPENEKTETFTFPAPVQPVSLPSTSDGDIHEDFCVC RKSGQLLMCDTCSR VYHLDCLDPLKTI PKGMWICPRQDOMLK KEEAI PWPGLTALVHSYIAYKAAKEEEKQKLLKWSSDLKQEREQ LEQKVQLSNSISKMEMKNTILARQKEMHSSLEKVKQLIRLIH GIDLSKPVDSSEATVGAISNGPDCTPPANAATSTPAPSPSSQSC TANCNQGEETK
6785	1	528	LGNTVLHYCSMYSKPECLKLLLRSKPTVDIVNQAGETALDIKR LKATOCEDLLSQAKSGKFNPHVHVEYEWNLROEIDESEDDDD KPSVPKKERSPKPOSFCHSSSISPQDKLALPGFSTPRDKQRLSY GAFTNQIFVSTSTDSPTSPTTEAPPLPPRNAGKGTGPPITPHR
6786	1820	1397	RSPKVLVLAPTELANHVS RDPKDI\TRKLTVARFYGGTSYQSQ INHIRNGIDILNGTPGRIKDHLQSGRLDLSKLRHVVLDEVOML DLGFABEQVEDIHESYKTDSEDNPTLLFSATCPQWVYTV\KK YMKSRYEQVDLNGKMTQKAATVEHLAIQCHWSQRPVIGDVLQ VYSGSEGRAIFCETKKNVTEMAMNPHIKQNAQCLHGDIAQSQR EITLKGFRGSEFKVLVATNVAARGLDIPEVDLVIQSSPPQDVES YIHRSGRTGRAGTGCICFYQPRERQQLRYVEQKAGITFKRVG VPSTMDLVKSKMDAIRSLASVSYAAVDFRPSAQRLEIEKGAV DALAAALAHISGASSFEPRSLITSDKGFTMTLESLEEIQDVSC ANKELNRKLSSNAVSQITRMCLLKGNMGVCFDVPTTESERLQAE WHDSWILSVPAKLPEIEEYDGNSSNSRQSRGWSGSRGSRGSG RSGGRSGRSGRQSGRSGRSGRQDGRRRSGNRNRSRSGGHKRS FD*VFYHLVDLFDLVDVSVYLTGRQIDHLTGLTGLIDHLSHS SVVN
6787	2640	2270	PSSFPIKNVPLEELEPPK*KRSGLSLTPKSIQNGP*PQTFFF FELGSPSGVISACNLRLGSSDSPAPASRVAGIIGTCHHAWLI LVFLVEMGFHHVGOAGLKLTL\VIHPPWPPKVLGLQT
6788	16	936	GGTVDLR\DMLA SVLA AVRGGR\ATVRRRVRESNVLHEKSKGKT REGAEDKMTSGEVL SNRMFYLLKTAFFSVQINTEEHVD\ELDQ

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			EVILWGS*DS*GYPK GK*LLPKEVFSR/RVLLSGLTPLDATOE\FTEDLSK\YVTTMVCVAVNGKPMGLGVHKKPFSEYTAWAMVDGGS NVKARSSSYNEKTPRIVVSRSHSGMVKQVALQTFGNQTTIIPAGG AGYKVLALLDVPDKSQEKADLYIHVYI\KKWDICAGNAILKALG GHMTLSGEEISYTGSDGIEGGLLASIRMNHQAIVRKLPDLEKT GHK
6789	2	678	GNGINVLKIAPESAIKFMAYEQIKRLVW**PGDS*GF/YERLVA GSLAGAI AOSSIYPMEVLKTRMALRKTGOYSGMLDCARRILARE GVAIFYKGYVPNMLGIIPYAGIDLAVYETLRNAWLQHYAVNSAD PGVFVLLACGTMSSTCGQLASYPLALVRTRMQAASIEGAPVET MSSLPKHILRTEGAFGLYRGLAPNFMKVIIPAVSISYVVYENLKI TLGVQSR
6790	2	4068	APPAGRRRMQAAPRAGCGAALLLWTVSSCLCRAWTAPSTSQKCD EPLVSGPLPHVAFSSSSSISGSYSYGYAKINKRGAGGWSPSDSD HYQWLQVDFGNRKQISALATQGRYSSSDVWTQYRMLYSDTGRNW KPYHQDGNIWAFPGNINSDGVVRHELOHP\IARYVRIVPLDWN G EGRIGLRIEVYGCSYWADVINFDPGHVLPYRFRNKKMKTLKDVI ALNFKTSESEGVILHGEQOQGDYITLELKKAKLVLSLNLGSNQL GPIYGHTSVMTGSLDDHHHWSVIERQGRSINLTDRSMQHFR TNGEPDYLDLDYEITFGGIPFSGKPSSSSRKNFKGCMESINYNG VNITDLARRKKLEPSNVGNLSFSCVEPYTVPVFFNATSYLEVPG RLNQDLFSVSFQFRTWNPNGLLVFSHFADNLGNVEIDLTESKVG VHINITQTKMSOIDDSSGSLNDGQWHEVRFLAKENFAILTIDG DEASAVRTNSPLQVKTGEKYFFGGFLNQMNSSSHSVLPQSPFQGC MQLIQVDDQLVNLVEVAQRKPGSFANVSDMCAIIDRCVPHNCE HGGKCSQWDSFKCTCDETCYSGATCHNSIYEPSCEAYKHLGQT SNYYWIDPDGSGPLGLPKVYCNMTEDKVVTIVSHDLQMOTPVVG YNPEKYSVTOLVYSASMDQISAITDSAEYCEQYVSFYCKMSRL NTPDGSPTYTWVGKANEKHYWGGSGPGIQKACGIERNCTDPK YYCNCADADYKQWRKDAGFLSYKDHLPPVSOVVGDTRDQGEAKL SVGPLRCOGRDRNYNNAASFPNPSSYLHFSTFOGETSADISFYFK TLTPWGVFLENMGKEDFIKLEKLSATEVSFSFDVGNPGVEIVVR SPTPLNDDQWHRVTAERNVKQASLQVDRLPQOIRKAPTEGHTRL ELYSOLFVGGAGGQOQGLGCIIRSLRMNGVTLDEERAQKVTSGFI SGCSGHCTSYGTNCENGKCLERYHGYSDCSNTAYDGTFCNKD VGAFFEEGMWLRYNFQAPATKARDSSSRVDNAPDQONSHPDLAQ EEIRFSFSTTKAPCILLYISSFTTDFLAVLVKPTGSLQIRYNLG GTREPYNIDVDHRNMANGQPHSVNITRHEKTIFLKLDPHPSVSY HLPSSSDTLFNSPKSLFLGKVIETGKIDQEIHKYNTPGFTGCLS RVQFNQIAPLKAALRQINASAHVHIQELVESNCGASPLTSPM SSATDPWHLDHLDASADFPYPNGQQAIRNGVNRNSAIIIGGVI A\VVIFTPSLCTP\VLP*SR*HVS PHKGTLP\IPNEAKGAGSRQK KPGRRPSMNDPPTSQRPIDESKKEWPHLRGGYLANG
6791	1801	1193	TGHEGAKGEKGDKCDLGRGERGQHGPKEKGYPGIPPEL/PGW SAVV*SWLTAASKVQAILLPQPLE*LGLOIAFMASLATHFSNQ NSGII FSSVETNIGNFFDVMTRFGAPVSGVYFFTFSMKHEDV EEVYVYLMHNGNTVFSMYSYEMKGS DTSNHA VLKLAGDEVW LRMGNALHGDHQRFFSTFAGFLLFETK
6792	33	1073	VRHTNWGVDMYLFSLGSESPKGAIGHIVSTEXTILAVERNKVL PPLWNRTFSWGFDDFSCCLGSYSGDKVLMTFENLAAGRCLCAV CPSPTTIVTSGTSTVVCVWELSMTKGRPRGLRLRQALYGHQAV TCLAASVTFSLLVSGSQDCTCILWDLHLTHVTRLPAHREGISA ITISDVSGTIVSCAGAHLSLWNVNGQPLASITTAWGPEGAITCC CLMEGPANDTSQIIITGSQDGMVRVWKT/VGCEDEVCSWTASRRG APGSASKPKRPQVGEEPGLESRAGR*HCFDREAQQNQ\PVTAL AVSRNHTKLLVGDERRIFCWSADG*BERGSRGSGTTVP

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6793	2340	805	GRKEANY\YGSITCAGTVSLGLDAEGQEVFPFSAVLPWVAFND LVFDGWDISSLNLAEMRRRAKVLWDWGLQEQWPHMEALRPFSV YIPEFIAANQSARADNLI PGSRAQQLEOIRDIRDFRSSAGLDK VIVLWTANTERFCEVIPGLNDTAENLLRTIELGLEVSPSTLFAV ASILEGCAFLNGSPQNTLVPGALELAWQHRVFGGDDFKSGQTK VKSVLVDFLIGSGLKMTSIVSYNHLGNNDGENLSAPLCFRSKEV SKSNVVDMMVQSNPVLYTPGEEPDHCVVIKYVPYVGDSCRALDE YTSMLGCGTNTLVLHNTCEDSLAAPIMDLALLTELQORVSF CTMDMDFEPQTFHPVLSLLSFLFKAPLVPPGSPVVNALFRQSC IENILRACVGLPPQNHMLLEHKMERPGPSLKKVGPVAATYPMNLK KGFVPAATNGCTGDANGHLQEEPPMPTT*GPGHTVSRLLPLPAP HDPTLKAPTNGKGRCHFSPSTWGSWGL
6794	169	1349	DDVKRKPEASAH*EKPGPPSRPGVRRGRERAGGRSGHARSCL EPAPPAPAPPEDHPDEEMGTIDIKSLKPGKTYTORCRLFVG NLPTDITEEDFKRLPERYGEPSVFINRDRGFGFIRLESRTLAE IAKAELDGTILKSRPLRIRFATHGAALTVMKNSPVVSNELLEOA FSQFGPVEKAVVVVDDRGRATGKGFVEFAAKPPARKALERCQDG AFLLLTTTPRPVIVEPMEQFDDJEDGLPEKLMQKTOQYHKKERQPP RFAQPGTTFEYASRWKALDEMEKQREQVDNRNIREAKEKLEAE MEAARHEHQLMLMRQDLMRROEELRLLEELRNQELQKQKQIQLR HEEHRRREEEMIRHREQEELRRQEGFKPNYMENYVCHFLR
6795	1740	1010	GPRRQTVRDHIELDSE*DWAAQETDCAQNSGERL*KGV/LENFS TMSKSAVKISLDLLSNPLCEQDQDLLNMVTLDTAMKRMDFNC EKVNQIKQTVIEPLKKFGSVFPSLNMVAKRREQALQDYRRLOAK VEKYEKEKGTGVLAKLHQAREELRPVREDFEAKNRQLEEMPR FYGSRLDYFQPSFESLIRAQVVYSEMHKIFGDLHQDQPGHS DEGRERENEAKLSELRLSIVADD
6796	48	683	GKEIQIPTIKLAWLLFGLE*PVGALGKGVVSP*SHVALGQLGW LTKAVRSSWRWELCVSAQEVVSQRSA*SSPSFVGACPSLNPET SVCEGRDCWQR*LPRLFSALVGQPGCWPOGAPPERCV*FGRCKW HLQSOVLR*ERRRCCRLPRFA*GWRRRHORLGLGHPAPLGST SPHPPEGNSQOCRR*GWAAELRLPSSVVL*GKLGK*
6797	1620	211	TERMTPTQPTRGSSCTRPSSMLWTSTWRCLTCEWAGMMSVVGV TLGPMAOGLLSASGTTTEATWTRPTTHLTIRWWLLTASRVDPF ERPPPPPSDDLTLLESSSYKNL/DAQIPQ/DWSMSPSTSG*RP LTSRASSIMRSRTAIPAS*SRLLTKHTVGGSPSAWRPRPTSRS VSTPVSSSTETTASGSCLTWSSSPAPCPSSAPAHSEASCK TSLWGCSSGSGDGSSACGSGWNLSMAGTSCSSPAMCSFSPRAPS* RSASRPRTWRATTSAASSWAPRCWCWGA*SAT*PSSTTTISSS PHCGWPCPASCASAAWLESTWATASVAGSCWGPIM*SSAHSPW CLSACSRSSMGTTCI*RSPP\SGASRAAAWCGSSPSSTFTPSS ASSTWCSASSRSRSPAPTPSSIPAAQAQRRASCRTSHSART APPPASSAAGAARPAAFSAAAGTPRRSIRCW
6798	3894	1696	STISWESLESWLNKATNPSNRQEDWEYIIGFCDQINKELEG*VS ALWGLRGSGLGRGTTMAKEGPGSPRLSALECVLLVPO\POIA VRLLAHKIOSPOWEALQALT*LGDRVSEKVKTKVIELLYSWTM ALPEEAKIKDAYHMLKROGIVQSDPPIPVDRTLIPSPPPRPKNP VFDDEEKSLKLLAKLLKSKNPDDLQEQANKLIKSMVREDEARIQKV TKRLHTLEEVNNVRLLEMLLHYSQEDSSDGDRELMKELFDQC ENKRRTLFKLASETEDNDNSLQDILQASDNLRSRVINSYKTIIEG QVINCEVATLTLDPSEGNQCSNQGTLIDLAELODTNSLSVLA PAPTTPSSGIPILPPPQASGPPRSRSSQAETLGPSTSNAL SWLDEELLCLGLADPAPNVFPKESAGNSQWHLQREQSDLDFFS PRPGTAACGASDAPLLQPSAPSSSSSQAPLPPPPAPVVPASVP APSAGSSLFSTGVAPALAPKVEPAVPGHHGLALGNSALHFLDAL DQLEEAQVTSGLVKPTTSPLIPTTTTPARPLLFPSTGPGSPLFQ

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			PLSFQSGSPKGPPELSLASIHVPLESIKPSSALPVTAYDKNGF RILFHFAKECPGRPDVLVVVSMNLNTAPLPVKISIVLQAAVPKS MKVKLQPPSGTELSFFSPIQPPAAITQVMLLANPLKEKVRRLRYK LTFALGEQLSTEVEVDQFPPEQWGNL
6799	3894	1696	STISWESLESWLNKATNPSNRQEDWEYIIGFCDQINKELEG*VS ALWGQLRGSGLRGRTTMAKEGQPGSPRLSAECVLLVPQ\PQIA VRLLAHKIQSPOEWEALQALTYLGDVSEKVKTKVIELLYSWTM ALPEEAKIKDAYHMLKROGIVQSDPPIPVDRTLIPSPPPRPKNP VFDDEEKSLLAKLLKSKNDDLEANKLIKSMVREDEARIQKV TKRLHTEEVNNVRLLEMLLHYSQEDSSDGDRELMKELFDQC ENKRRTLFLASETEDNDNSLDILQASDNLRSRVINSYKTIIEG QVINGEVATLTLPDSEGSQCSNQGTLDLAELDTNLSLSSVLA PAPTPPSSGIPILPPPPQASGPPSRSSQAETLGPSSSTNAL SWLDEELLCLGLADPAPNVPPKESAGNSQWHLQREQSDLDFFS PRPGTAACGASDAPLLQPSAPSSSSQAPLPPFPAPVVPASVP APSAGSSSLFSTGVAPALAPKVEPAVPGHHGLALGNSAIHHLDA DQLEEAQVTSGLVKPTTSPLIPTTPARPLPFSTGPGSPPLQ PLSFQSGSPKGPPELSLASIHVPLESIKPSSALPVTAYDKNGF RILFHFAKECPGRPDVLVVVSMNLNTAPLPVKISIVLQAAVPKS MKVKLQPPSGTELSFFSPIQPPAAITQVMLLANPLKEKVRRLRYK LTFALGEQLSTEVEVDQFPPEQWGNL
6800	404	1646	RRSPSTGLSPVPCPSSPSLSDYSIPWSELLSGTIAWATPGK*AG *PQAW*LGLAPAIIFI/GLTRGRKONKEKMAEGSGDVEDDAGDC SGARYNDWSDDDDDSNESKSIWVYPPWARIGTEAGRARARARA RATRARRAVOKRASPNDDTVLSPQELQKVLCLVEMSEKPYILE AALIALGNNAAYA FNRIIRDGLGLPIVAKILNTRDPIVKEKAL JVLNNLSVNAENQRRLLKVMNQVCDTITSRNSSVOLAGLRLL TNMTVTNEYQHMLANSISDFRLLPSAGNEETKLQVLKLLNLAE NPAMTRELLRAQVPSLGL\SLFNKKENKEVILKLLVIFENINDN FKWEENEPTQNOFGESLFFFLKEFOVCADKVLGIESHHDFLVK VKVGKFMAKLAHEMFPSQSE
6801	2	1755	SAEEFESQASVTMHDVDAESFEVLVDYCYTGRVSLSEANVERL YAASDMLQLEYVREACASFARRLDLTNCITAILKFADAFGHRKL RSQAQSYIAQNFQKLSHMGSIREEITLADTLAQLLAVLRDSDLD VESEQTVCHIVAVQWLEAAPKERGPSAAEVFKCVRWMHFTEDQD YLEGLLTKPIVKKYCLDVEGALOMRYGDLKYSLVPVPSNSSS /R*QQQLSCICSRKSTPETGYVCGDGLLWTPORSLS\RYDPY SGDIYTMPSPLTSTFAHTKTVTSSAVCVSPDHDIYLAQPRKDLW VYKPAQNSWQQLADRLLCREGMDVAYLNGYIYILGGRDPIITGVK LKEVECYSVQRNQWALVAPVPHSFYSFELIVVQNYLYAVNSKRM LCYDPSHNMWLNCA SLKRSDFOEACVFNDIYICIDI PVMKVYN PARGEWRRISNIPLDSETHNYQIVNHDQKLLITSTTPQWKKNR VTVVEYDTREDQWINIGTMLGLQFDSGFI CLCARVYPSCLEPG QSFITEEDDARSESSTENDLDGFSELDSESGSSSSFSDDDEVWVQ VAPORNAODQOQSL
6802	157	1341	ETFFLFFFLSKTPGKTASMAHFVQGTSRMIAESSTEHEKCAE PSTRKNLMNSLEQKIRCLEKQKELLEVNQQWDQOFRSMKELYE RKVAELKTKLDAERFLSTREKDPHQQRKDDQREDDRQDLT RDRLOREEKEKERLNEELHELKEENKLLKGKNTLANKEKEHYEC EIKRLNKALQDALNICKSFSEDCLRKSRVEFCHEEMRTEMEVLK QQVQIYEEDFKKERSDRERLNQEKEELCOINETSQSQLNRLNSQ IKACOMEKEKLEKQLKQMYCPPCNCGLVFHLQDPWVPTGPGAVQ KQREHPPDYQWYALDQLPPDVQHKAN/DWCLAPPVCCQAG/PR TPGLK*SSCLWLPKC*NFRFILSKESPSVEVHTNRERQQATRER G
6803	1	2203	KLSGRPYRHMGVLGTSKLYDIRKTI FTFTPQFIDQOQFYALDN

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			KMIVEMLRTDLSYLCRWMTGQPTITFPISHSMLEDDGTSLSNS SILAALRRKMDGYFGGARVQTGKLESEFLTTSCTHLSFMDPGPE GKLYSEDDYDDYDLESIGNWMDYDSTSHARCGDEVARYLDHLL AHTAPHPKLAPTSQKGGDLRFQAAVQTTCDLMSLVTKAKELHVQ NVHMYLPTKLFQASRPSFNLLDSPHQENQVFSVRVEIHLFRD QSGEVDKALVLQKLTSSSQEQADILYMLYTMKGPDMWTELYN ERSATVRELLTELYGKVGELRHGWLIRYISGILRKKVEALDEAC TDLLSHQKHLTVGLPPEPREKTIAPLPYEALTOLIDEASEGDM SISILTOEIMVYLAMVMRTQPLFAEMFRLRIGLIQVMATELA HSLRCSAEAEATEGLMNLSPSAMKLLHHLGKKEFGVERK/SVR PTDSNVSPAISIEHIGAVGATKTERTGIMQLKSEIKQVEFRRLS ISAESQSPGTSMTPSSGSFSPAYDQSSKDSRQGWQRRRLDG ALNRVFPVGPYQKVVVQLQKCHGLSVGEFVLPSTTREMTPGEIK FSVHVES\VLNVLLRPEYRQLLVEAILVLTMLADIEIHSIGSI AVEKIVHIANDLFLOEQKTLGP\DDTMLAKDPASG\ICTLR\YD SAPSGRFGTMYLS\RAA\ATYVQEFPL\HSICAMQ
6804	1	951	QSPGKKEEKAKNKESLCMENSSSSSDEDEETKAKMTPTKKYN GLEEKRKSLRTTGFSYSGFSEVAEKRIKLLNNSDERLQNSRAKDR KDVWSSIQGWPKKTKELFSDSDTEAAASPPHAPPEEGVAEES LQTVAEESCSPPSVELEKPPPVNVDSKPIEEKTEVENDRKAEP SSGSNFS* I PLPYLHLNRLHQL* QKGSROQSSVTVEPLAPN QEEVRSIKSETDSTIEVDSVAGELQDLQSERE*LASRF*COCEL KO* SARTRTS* KSLYRSEKSEKSGRRKFIKKAEKKP* SNSGK QOKEGKRHK
6805	1539	206	RQPDLYFGKSFVSVSESSLLSNDLPKFADGIKARNRNYL VPSPVLRLDHTAFSTEKSADIVICDEECDSPEVNOQTQEESE IEVHTAEDVP IAVEVHAISEDYDIETENSSSLLQDQTEPPA KLCKILDKSQALNVTAQQKWPLLRANSSGLYKCELFNPKYFS DLKQHMILKHKRTDSNVCRCVCKESFSTNMLLIEHAKLHEEDFYI CKYCDYKTVIFENLSQHIADTHFSDHLYWCEQCDVQFSSSELY LHFQEHSCDEQYLCOFCEHETNDPEDLHSHVNEHACKLIELSD KYNNGEHGOYSLLSKITFDCKCNFFVCOVCGFRSLHTNVNRHV AIEHTKIFPHVCDDCGKGFSSMLE\IAKHLNHLSEGIYLCQYW EYSTGQIEDLKIHLDFKHSADLPKCSDCCLMRFGNERELISHL VHETT
6806	272	3794	VALCFPNSDPVMFMDAFYGCLLAELGPVPIEVPLTRKDAGSQV GFLGSCGVFLALTDDACQXGLPKAQTGEVAAFKNPPLSWLVI DGKHLAKPPKDWHPLAQDTGTGTAYIEYKTSKEGSTVGTVSHA SLLAQCRALTOACGYSEAEITLNVLDKRDAGLWHGVLTSMNR MHVVSVPYALMKANPLSWIQKVCFYKARAALVKSMDHWSLLAQ RQQRDVSLSRLMLIVADGANPWSISSCDAFLNVFQSRGLRPEV ICPCASSPEALTVAIRRPDLGGPPPRKAVLSMNGLSYGVIRVD TEEKLSVLTVDVGQVMPGANVCVVKLECTPYLCKTDEVGEICV SSSATGTAYYGLLGITKNVFEAVPVTTGGAIFDRPFTRTGLLG FIGPDHLVFIJGKLDGLMVTGVRNRHADDVVATALAVEPMKFVY RGRIVAFSVTVLHDDRIVLVAEQRPDASEEDSFQWMSRVLQAD SIHQGVYCLALVPANTLPKAPLGGIHISETKQRFLEGLTHPCN VLMCPHTCVTNLPKPRQKQPEVGPAISMIVGNLVAGKRIAQASGR ELAHLEDSDQARKFLFLADVLQWRAHTTPDHLFLLLNAKGTVT STATCVQLHKRAERVAALMEKGRLSVGDHVALVYPGVDLIAA FYGCLYCGCVPTVRPPHQNGLTTLPTVMIVEVSKSACVLT QAVTRLLRSKEAAAADIRTPWPTILDTDDIPKKKIASVFRPPSP DVLAYLDFSVSTTGILAGVVMASHAATSALCRSJKLOCELYPSRQ IAICLDPYCGLGFALWCLCSVYSGHQSVLPPELESNVSLWLS AVSQYKARVTFCCYSVMEMCTKGLGAQTGVLRMKGVNLSVVRTC MVVAEERP\RIALTQSFSLFKDLGLPARAVSTTFGRVNVVAIC

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			LQGTAGPDPTTVYVDMRALRERDRVRLVERGSPHSLPLMESGKIL PGVKVIAHTETKGLGDSHLGEIWSPPHNATGYTTVYGEAL HADHFSARLSFGDTQTIWARTGYLGLRTELTDASGGRHDALY VVGLDETLELRGMRYHPIDIETSVIRAHRSIAECAVFTWTNLL VVVVELDGLQDALDLVALVTNVVLEEYLVVGVVVIVDPGVIP INSRGEKORMHLRDGFLADQLDPIYVAYNM
6807	1444	606	VGHDIVHAMFTCFPPKCLGFSPPVNVTVSPRSESHTTTVSGGNG SVFOAGPOLQALANLEARRGSI GAALSERDVSGLPVYAQSSEPR RLTAQAVAAFPGENALEHSSDQDTWDSLRSPGFCSPSSGGGAE SLPPGGPGHAEAGHLGKVCDFHLNHQCPSPTSVLPTVAAPPLE KILSVDSVAVDCAYRTVPKPGPQPGPHCSLLTEGCLRSLSGDLN RPPCGMEVHSGORELESVVAVGEAMA\LKFFPMGAMSYCLDRSR FLFRLPMGLSCPLQVQ
6808	2063	737	GVSGAASALARSRLASRLSSRRRTAPRSGAMQRLAMDRLML SRELSLYLEHQVRVGFSGVGLSLILGFSVAYAFYYLSSIACK PQLVTGGESFSRFLQDHCPTVTETYYPTVWCWEGRGQTLRPF\ ITSKPPVQYRNELIKTADGGOISLDWFNDNSTCYMDASTRPTI LLLPGLTGTSKESYILHMIHLSEELGYRCVVFNNRGVAGENLIT PRTYCCANTEDLETVIHHVHSLYPSAPFLAAGVSMGMLLLNYL GKIGSKTPLMAAATFSVGWNTFACESLEKPLNWLFLNYLITTC LQSSVNKHHRHMFVKQVMDHVMKAISIREFDKRTSVMFGYQTI DDYYTDA SPRLKSVGIPVLCNLSVDDVFSHPAIP IETAKQN PNVALVLTSGGHI GFLEGIWPRQSTYMDRVFKQFVQAMVEHGH ELS
6809	939	65	DYSGQTPVPTHEGMLTYTPAOTHPQPGSEASTQPIAGTQTVPQ TDEAAQTSQPLHPSDPTKQKQKRLHVSNI PFRFRDPDLRQMF GQPGKILDVEIIFNERGSKGFGFVT FETSSDADRAREKLN GTIV EGRKIEVN NATARVMTNKKTGNPYTNGWKLNPVVGAVYGEFYA VTGFPPYPTGTAVAYRGHLRGRGRAVNTFRAAPPPPIPTYG AVYQDGFYGA EI\LEATQPTDTLSPLCRRQPTATVTAESTQLP TRTITPSGPRRPTALEPCETFHRFLGPF
6810	939	65	DYSGQTPVPTHEGMLTYTPAOTHPQPGSEASTQPIAGTQTVPQ TDEAAQTSQPLHPSDPTKQKQKRLHVSNI PFRFRDPDLRQMF GQPGKILDVEIIFNERGSKGFGFVT FETSSDADRAREKLN GTIV EGRKIEVN NATARVMTNKKTGNPYTNGWKLNPVVGAVYGEFYA VTGFPPYPTGTAVAYRGHLRGRGRAVNTFRAAPPPPIPTYG AVYQDGFYGA EI\LEATQPTDTLSPLCRRQPTATVTAESTQLP TRTITPSGPRRPTALEPCETFHRFLGPF
6811	1522	658	DLVTVWSFVDCRVIASTHGH\KSWVSUVAFDPYTTSVEEGDPME FSGSDEDQDLLHFGDRADSTQCRLSRRNSTDSRPVSVTYRFG SVGQDTQLCLWDLTEDILFPHOPLSRARHTNMVNATSPAGSN GNSVTTPGNSVPPPLPRSNLPHSAVSNAGSKSSVMDGAIASGV SKFATLSLHDKERHHEKDKRNSMGISSKSSDKLNLVTKTK TDPAKTLGTPLCPMEDVPLLEPLICKIAHERLTVLIFLEDCEI VTACQEGFICTWGRPGKVVSFNP
6812	4001	1682	EDVAFSLDLSTIIQGTWFLNGEELKSNEFEGQVEPGALRYRIEQ KGLQHRILIHAVKHQDSGALVGFSCPGVQDSAAITIQESPVHIL SPQDKVSLTFTTTSERVVLTCELSRVDFPATWYKDGQKVEESELL VVKMDGRKHLRILPEAKVQDSGEFECRTEGVS AFFGVTVQDPPV HIVDPREHV FVHAITSECVMACEV\DR\EDAPVRWYKDGQVE ESDFVVLNENEGPHRRLLVPATQPSDGGEFQCVAGDECAYFTVTI TDVSSWIVYPSGKVYVAVRLEVVLTCELCRPWAEVRWTKDGE EVVESPALLLQKEDTVRRLLVPAVQLEDSEYLC EIDDESASF VTTEPPVRIIYPRDEVTLIAVTLCEVLMCELSREDAPVRWYK DGLEVEESEALVLERDGPRLVLPAAQPEDGGEFVCDAGDDSA FFTVTTEPPVQFLALETTPSPLCVAPGEPVVLSCELSRAGAPV

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			VSHNGRPVQEGEGLELHAEGRPRVLCIQAGFAHAGLYTCQSG AAPGAPSLSTFTVOVAEPPVRVVAPEAAQTRVRSTPGDLELVH LSGPGGPVRWYKDEGLASQGRVQLEQAGARQVLRVQGARSGDA GEYLCDAPQDSRIFLVSVVEEPLLVKLVSDLTPLTVHEGDDATFR CEVSPDDADVTWLRNGAVVTPGPQRQSCCSYGGCRMCGQRKART CVSKWROAEWVQGRGPCAGCEVGSFCPTTLACPWPRMGSTASSS MVSYPWTRAPTAARATTIAPWPGSA
6813	9	836	SSTQQRPGVPAGPRPLDGYLGVAHDKPLKMHCRDCALVTSSGHL LHSRQGSQIDQTECVIRMNDAPTRGYGRDVGNRSLRVIAHSSI QRLRNHRHLLNVSOQTVFIWGPSSYMRDGGKQVYNNLHLLS QVLPRLKAFMITRHKMLQFDELFKQETGQ\NKKISNTWLSTGWF TMTIALELCDRINVYGMGPPDFCRDPNHPSPVPHYHYEPFGPDEC TMVLSHERGRKGSHHRFITEKRVFKNWARTFN1HFFQPDWKPEL LAINHPENKPVF
6814	3	737	KFRROEAN/ARENRMHGLNDALDNLKRVVPCYSKTQKLSKIET LRLAKNYIWALSEILRIGKRPDLTFVQNLCKGLSQPTTNLVAG CLQLNARSFLMGQGGEEAAHHTSFYSTFPYPHSPELTPPGHG TLDNSKSMKPYNYCSAYESFYESTSPECASQFEGPLSPPPIN NGIFSLKQEETLDYKKNYNYGMHYCAVPPRGPLGQAMFRLPTD SHFPYDLHLRSQSLTMQDELNAVPHN
6815	906	557	QGLDPASQTKVVELLKDGSGRRGDRSSRDMAGGAGPRSESDLE DVGPFAEWNGDGSGLRRSGSFGKLRDALRRSSEMLVKKLQGGT PQEPNPRMKRASSLNFLNKSVEEPTOPGG
6816	1	807	NLLKTHKF\LLGQDEDSLHSPVPAOMGNYQEYKLTASPLREID PDQKRLHTFCNPFKQDKKGMIDEADEFVAGPQNKVKRPGEPN SPMSSKRRRSMALLRKPKTPPTVTNHVGGKGPSPASWFPSPYN LIKPTLVHTDATI1HDGHEEKMEGQITPDGFLSKSAPSELINM TGDLMPPNQVDLSDDFTSLSKDGLIQKPGSNAFVGGAQVCSLS VDDQKDPVASTLGAMPNTLQITFAMAOGINADIKHQLMKEVRKF GRSK
6817	172	3457	LGMMDSPKIGNGLPVIQPGTDIG1SSLHMVGYLGKFNDSAKVPS DEYCPACKEKGLKALKTYRISFOESI FLCEDLQCIYPLGSKSL NNLISPDL EECHTPHKPQKRKSLSSYKDSILLANSKKTRNYIA IDGKVLNSKHNGEVYDETSSNLPDSSGQQNP1RTADSLERNEJ LEADTVDMATTKDPATVDVSGTGRSPQNEGCTSKLEMPLESKC TSFPQALCVOWKNAYALCWLDCILSALVHSEELKNTVTGLCSKE ESIFWRLLTKYNQANTLLYTSQLSGVKDGDCCKLTSEIFAEIET CLNEVRDEIFISLOPOLRCTLGDMESPVFAFPLLLKLETHIEKL FLYSFSWDFECSQCGHQYQNRHMKSLVTFTNVIPEWHPLNAAHF GPCNNCNSKSQIRKMVLEKVSP1FMLHFVEGLPQNDLQHYAFHF EGCLYQITSVICYRANNHFITWILDADGSWLECDLKGPCSERH KKFEVPASEIHF1VWERKISQVTDKEAACLPKKTNDQHALSNE KPVSLTSCSVGDAASAETASVTHPKDISVAPRTLSQDTAVTHGD HLLSGPKGLVDN1LPLTLEETIQKTASVSQNLSEAF\LENKPV AENTG1LKTNTLLSOESLMASVSAPCNEKLIQDQFVDISFPSQ VVNTNMQSVOLNTEDTVNTKSVNNTDATGLIQGVKSVEIEKDAQ LKQFLTPKTEQLKPERVTSQVSNLKKKETTADSQTTTSKSLQNO SLKENQKKPFVGSWVKGLISRGASFMPLCVSAHNRNTITDLQPS VKGVNNGFGFKTKGINQKASHVSKKARKSASKFPPI SKPPAGPP SSNGTAAHPHAAHAAEVLEKSGSTSCGAQLNHSSYGNGISSANH EDLVEGQIHKRLRLKRLKKAEEKKLAALMSSPOSRTVRSENLE QVPQDGSNDCESE1EDLLNELPYP1DIANESACTVPGVSLYSS QTHEE1LAELLSPTPVSTELSENGEGDFRYLGMGDSHIPPPVPS EFNDVSONTHLRQDHNYSPTKKNPCEVQPDSLTNNACVRTLN ESPMKTD1FDEFFSSSALNALANDTLDLPHFDEYLFENY
6818	2	246	RGFDKVLWT/LSGAVK\CVQFSR1SPDGEEGYPGELKVVVTTYTL

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6819	1	961	DGGE/LHS/ATTEHKP/VQATPVNLT\TILTSTWQARLPQI GIPCTEMGNFDNANVTGEIEFAIHYCFKTHSLEICIKACKNLAY GEEKKKCNPYVKTYLLPDRSSQGRKKTGVQRNTVDPTFQETLK YQVAPQVLVTRQLQVSVWHLGTLARRVFLGEVIPLATWDFEDS TQSFWRHPLRAKADKYEDSVQSNGLTVRAKLVLPSRPRKLO EAQEGTDQPSLHGQCLVVLGAKNLPVRPDGTLNSFVKGCCLTP DQQLRLKSPVLRKQACQWKHSFVFSGVTPAQLRQSSLELTVW DQALFGMNDRLGGT\RLGSKGDTAVGGDACSSQSKLQWQKVLSS PNLWTDMLVLH
6820	1014	340	GDMVYIVGHVFPFGFFEKTOKNAWFREGFNEKYLKVVVRKHHRVIA GQFFGHHTDSFRMLYDDAGVPIAMFITPGVTPWKTTLPGVVN GANNPAIRVFEYDRAFLSLKDMVTYFMNLSQANAQGTFRWELEY QLTEAYGVPDASAHSMHTVLDRIAGDQSTLQRYVYVNSVSYAG VCDEACSMQHVCAMRQVDIDAYTTCLYASGTTVPVQLPLLLMAL LGLCT
6821	1088	516	EFDIYR/EVGGEFVPVTRDDSSNGFPRTQHGSPSTVHPIQSPON RFCVLTLDPELPAIATTLIDVLFYSHSTPKEAASSPEPSSIT FFAFSLIEGYI\SIVMDAETQKKFSDLLLTSSSGELWRMVRIG GQPLGFDECGIVAQIAGPLAAADISAYYISTFNFHDHALVPEDGI GSSVIEVLQRRQEGLAS
6822	1088	516	EFDIYR/EVGGEFVPVTRDDSSNGFPRTQHGSPSTVHPIQSPON RFCVLTLDPELPAIATTLIDVLFYSHSTPKEAASSPEPSSIT FFAFSLIEGYI\SIVMDAETQKKFSDLLLTSSSGELWRMVRIG GQPLGFDECGIVAQIAGPLAAADISAYYISTFNFHDHALVPEDGI GSSVIEVLQRRQEGLAS
6823	654	221	PPKLLSRWARMGHGDEIV\LSDLNFPGLLHLPVVGWPRSVQTAC GIPQLLEAVLKLPLDITYVESPAVMELVPSDKERGLQTPVWTE YESILRRAGCVRALAKIERFEFYERAKKAFVAVATGETALYGNL ILRKGVLALNPLL
6824	858	104	LLLAQRKGGW\CCFFSLAVSVKMNVLLFAPGLLFLLLTQFGFRG ALPKLGICAGLQVVLGLPFLLENPSGYLSRSFDLGRQFLFHWTV NWRFLPEALFLHRAFLALHTAHLTLLLLFALCRWHRTGESILS LLRDPKSRKVPPOPLTPNQIVSTLFTSNFIGICFSRSLHYQFYV WYFHTLPYLLWAMPARWLTHLLRLVLGLIELSWNTYPSTSCSS AALHICHAVILLQLWLGPPQFPKSTQHSKKAH
6825	3	1173	SSGEFLQASDIMWTISDTGWILITLCSLMEPWALGACTFVHLL PKFDPLVILKTLSSYPIKSMMGAPIVYRMLLQDDLSSYKFPHLQ NCLAGGESLLPETLENWRAQTGLDIREFYQGTETGLTCMVSKTM KIKPGYMGTAASCYDVQIIDDKGNVLPPTGTEGDIGIRVKPIRPI GIFSGYVDNFDKTAANIRGDFWLLGDRGIKDEDDGYFQFMGRADD IINSSGYRIGPSEVENALMEHPAVVETAVISSPDPVRGEVVKAF VILALQFLSHDPEQLTKELQHVKSVTAPYKYPKIEFVLNLPK TVTGKIQRA\KLKRDKEWKMSGKAPCAVRHLRDIHLDSPLLSLSF PFGPLALPMDGYGDSLWEEHEYKFCALVISTKLYHVRC
6826	2304	954	LKTESFKPW/VNIALAFHLLGERASPNSFWQPYIQTLPREYDTP LYFEEDVRYLQSTQAIHDFVSQYKNTARQYAYFYKVIQTHPHA NKLPLKDSFTYEDYRWAVSSVMTRQNQIPTEDGSRVTLALIPLW DMCNHTNGLITGYNLEDDRCECVLQDFRAGEQIYIFYGTRSN AEFVIHSGFFFDNNSHDRVKIKLVSKSDRLYAMKAEVLARAGI PTSSVFALHFTPEPPIAQLLAFLRVFCMTEELKEHLGDSAID RIFTLGNSEFPVSWDNEVKLWTFLEDRASLLKTYKTTIEEDKS VLKNHDLVRAKMAIKLRLGEKEILEKAVKSAAVNREYRQOME EKAPLPKYEESNLGLLESSVGDSRLPLVLRNLEEEAGVQDALNI REAIKAKATENGLVNGENSTPNGTRSENESLNQESKRAVEDAK GSSSDSTAGVKE

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6827	1	779	SSVVEFGLSVLGGFLFLFVLENMLGLLRHRLRPRCCRRKRRL ETRNLDPENSGMALOPLQAAPEPGAQOREKNSQHPALAPPG HQGSHGHGCGGTDTWMVLLGDGLHNLDTGLAIGAAFSDGFSSG LSTTLAVFCHLPHLPGDFAMLLQSGLSFRRLLLLSLVSGALGL GGAVLGVLSLGPVFLTPWVFGVTAGVFLYVALVMLPALFPSS GAPAYA\HVLLOGLGLLGGCLMLAITLLEERLLPVTTEG
6828	3	1654	KSQHG/WILOLMHSCKEGYVKDLKGNPGLHRAMLDDLNGTRFSE LGHLSQTASLKRGSFQSGRDDTWRYKTPHRVAFVEKLTKLVL S QLPNFWKLWISYVNGSLFSETAEKSGQIERSKNVRORONDFKKM IOEVMHSLVKLTRGALLPLSIRDGEAKYGGWEVKELSGQWLA HAIQTVRLTHESLTALEIPNDLLQTIQDLILDRLVRCVMATLQH TAEETKRLAEKEDWIVDNEGLTSLPCQFEQIVCSLSLKGVL E CKPGEASVFQPKTQEEVCQLSINIMQVFIYCLEQLSTKPDADI DTHLSVDVSSPDLFGSIHEDFSLTSEQRLLIVLSNCCYLERHT FLNIAEHFEKHNFGQIEKITQVSMASLKELDORLFENYIELKAD PIVGSLEPGIYAGYFDWKDCLPPTGVRNYLKEALVNI IAVHAEV FTISKELVPRVLSKVIEAVSEELSRLMQCVSSFSKNGALQARLE ICALRDTVAVYLTPEKSSFKQALEALPQLSSGADKLLLEELN KFKSSMHLQLTCFQAASSTMMKT
6829	1	782	MRMEAGEAAPFAGAGGRAAGGWKVRNLNVGGTVFLTRQTLCR EQKSFSLRQLCGEELQSDRDETGAYLIDRDPYFGPIILNLRHG KLVLDKDMAEEGVLEAEFYNIIGPLIRI IKDRMEEKDYTVTQVP PKHVYRVLQCCGEELTQMVTMSDGRFEQLVNISSSYNGSED QAEFLCVVSKELHSTPNGLSSESSRKTSTEEOLEEQOQOEEVE EEEVEEQVQVEADAQEK/CCYKPEAPGCEAPDHLQGLGVPI
6830	1	925	MEPGSVENLSIVYRSRDFLVVNMKWDVIRDSKAWRETLTLQKQL RYRFPPELADPDTCYGFRCFHQDLDFSTSGALCVALKAAAGSAYR CFKERRVTKAYLALLRGHIQESRVTISHAIGRNSTEGRAHTMCI EGSQGCENPKPSLTDLVVLEHGLYAGDPVSKVLLKPLTGRTHQL RV\HCSALGHPVVGDLTYGEVSGREDRPFMRMLHAFYLRIPTDT ECVEVCTPDPFLPSLDACNSPHTLLOSLEOLVOALRATPDPPDE DRGPRPGSPSALLPGPGRPPFPPTKPPETERGRCPCLOWLSEWT LEPDS
6831	3	1067	SLFFGSSTPDNRKVAEOEDLETPSPSVEKAVTVIDPEGTIPTNF NVAEKPADHSLSEVKLKTADPRGTLVKSGDQNVKEKSMILSN VEDLQPKFISEVSRDYGKKEISGDSEEMNINSVTSADGENL EIQSYSLIGELVMEEAKTIVPPHVTDSKRVOKPAIAPPSKWN I SIFKEEPSRDQKQSLLSFDVVDKVPQPKSASSNFASKNITKE SEKPESIILPVEESKGSIDFSEDRLKKEMQNPTSLKISEETK LRSVSPTEKKENLENR\SYTL\AEKKVLAEKONSV\APLELRDS NEIGKTQITLGSRSSTELKESKADAMPQHIFYQNEYNERPKIIVG SEKEKDEKKKK
6832	1809	412	MGSLGISGPPQDNGEALKEPERAQEHSLPNFAGGQHFFPYLLV VSLKKKRSEDDYEPITTYQFPKRENLLRGQEEERLLKAIPLF CFPDGNWASLLEYPRETFSEVLTNVDSRKIGYCRRLPAGPG PRLPKVYCTIISCIGCFGLFSKILDEVEXRHOISMAVIYPFMQGL REAFAFPAGKTVTLKSYIPDSGTEFISLTRPLDSHLEHVDFFSL LHCLSFQILOIFASAVLERKIIIFLAEGSLTSCQIHAAAALLY PFSWAHTYIPVVPESLLATVCCPTPFMVGVQMRFFQOEVMDS PME EVLLVNLCGTFPLMSVGDEKDILPPKLQDDILDSLGQGINELKT AEQINEHVSGPFVQFFVKIVGHYASYIKREANGQGHFQERSFCK ALTSKTNRRFVKFKVTQLFSLFIQEAESKNPPAGYFOOKILE YEEQKKQ/TETKGNCEIRAVVNQND
6833	1	1129	PLMTLSQGGIPGHGSHGHGHHGLPKGPRVKSTRPGSSDIN VAPGEQGPDQEETNTLVANTSNSNGLKLDPADPENPRSGDTVEV QVNGNLVREPDHMELEEDRAGQLNMRGVFLHVLGDALGSVIVVV

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			NALVFYFSWKGCSGDFCVNPFDPCKAFVEIINSTHASVYEA GPCWVLYLDPTLCVVMVCILLYTTYPLLKESALILLQTVPKQID IRNLIKELRNVEGVVEVHELHVWQLAGSRIIATAHIKCEDPTSY MEVAKTIKDVFNHGIHATTIQPEFASVSGSKSSVVPCELACRTQ CALKQCCGTLPQAPSGKDAEKTPAVSISCELSNNLEKKPRRTK AENIPA\VVIEIKN\IPNK\QPESSL
6834	78	1151	AGQERPAPIWRLWLPTPSVSRKAEPAPIPNR*GA*E*RGGLP LCGSSASAYGWH*RLTPWSPGGS*HM*SSKAPVTCAREVLVAGP CSKLVLSGARGIVGTTVQVLEAQOPLLLFTGVWGLNLRAGEE SRAL*LIIEVTQVRDAHLGNVVGCAQCLSQGVGSALAKALLE AAAARVDCKEVLTVSGDKQAEVSRL*VRDVCVEEAGCVEFGQ AHGRPGLALAKRGGRGTNEVEEQVQVQGVQLVLSAHECHELVAG QDGEDQAARTRLQAGAHVAHGRRGQAPCRPHQEAQVSCHE LQQVVGDAL*ARE*APQIIVLLLEDVAQLRTGKKA*DLVVDVE QLLROL
6835	1	834	GIPAADR\EASLELIKLDISRTFPNLCIFQGGPYHMLHSLTG AYTCYRPDVGYVQGMSTFAAVLILNLDTADAFIAFNNLNKPCQ MAFFRVDEGLMLTYFAAFEVFFEENLPKLFHAFKKNLTPDIYL IDWIFTLYSKSLPLDLACRIWDVFCRDGEFFLFRALGILKLF DILTKMDFIHMAQFLTRLPEDLPAEELFASIIQMSRNKKWA QVLTALQKDSREMRGKSVPTLRLOREFALGTNCSMPPLCC FRLTPGQPRRTDAL
6836	1	850	MSCGRPPPDVDMITLKV\DNLTYRTSPDSLRVFEKYGRVGDV YIPREHTKAPRGFAFVRFHRRDAQDAEAAMDGAELDGRRLRV QVARYGRRDLPRSRQGRRAAGPEAA/RYGRRSRSYGRRSRSPR RRHRSRSGPSCSRSRSRSYRGSRYSRSPYSRSPYSRYSR PYSRYSRYSRSGSHYSSSGYSRYSRYSRYSRSHSGSGSST SRASSTSKSSSARRSKSSSVSRSRSRSSMTSRPPRVSKRKS KSRSRSKRPPKSPPEEGOMSS
6837	1	1369	TDGAAVAGNPGSDYFPGGTAP/GCPRTRF\SGTSSSGSKASGP PNPQAQDGTSLSPNYTLESTSGNDGKPVSGGGGRGRRRKRD GHVSPGTFFDKYSAAPDSGGAPGVS PGQQQASGAAVGGSSAGET RGAPTPEKALTPSWGKGAELLGDQPDIGSLDGGAKSDSS PNVGEFASDEVSTSYANEDEVSSSDNPQALVKASRSLVTGSP KLPPRGVAGEHGPAPPPALGLGIMSNSTSTPDSYGGGGPGH PGTPGLEQVTRPTSSSGAPPPDEIHPLEILCAQIOLQROQFIS EDQPLGLKGGKGECAVGASGAQNGDSELGSCCSEAVKSAMSTI DLDSLMAEHSAAWYMPADKALVDSADDDKTLPWEKAKQNPNS KEAHDLPANKASASQPGSHLQCLSVHCTDDVGDAAKARASVPTWR SLHSDISNRFGTFAALT
6838	16	499	LTDTPPPKTHMIHHSISDYKATLRCWALGFYPMEITLTWQDEE DQTRDMELVETRPAGDGTQKWAAVVPSGEE/Q/RYMCHVQHE GLPEPLTLRWEQSQPTIPIVIGIVAGLVLLGAVVTGAVVSAVMC RKKNSDRVSYSEASSDHAQGSVDVSLTACKV
6839	1	1195	AAPAGGGPDPEALSAPFGRHLSGLSWPQVKRLDALLSEPIPIHG RGNFPTLSVQPRQIRAGGPQHPCGAG\IHVHRVRLHGSAAASHVL HPESGLGYKDLVFRMDLRSEASFQLTAKAVLACLDFLPAGV SRAKITPLTLKEAYVQKLVKCTDSRWLSLISLNSKSGKNVELK FVDSVRRQFEFSIDSFQIILDSLLLFQCSTPMSEAFHPTVTG ESLYGDFTEALEHLRHRVIATRSPEIRGGGLLYCHLLVRGFR PRPSTDVRLQRYMCSRFFIDFPDLVEQRTTLERYLEAHFGGAD AARRYACLVTLHRVNVSTVCLMNHERRQTLDLIAALALQALAE QGPAATAALAWRPPGTGCVVPATVNYVTPVQPLLAHAYPTWLP CN
6840	4254	2061	ELQGDFFSVDPVFKSMWCENSICVGFKRDDYLLIRVDGKGSIKEL FPTGKQLEPLVAPLADGKVAVGDDLTVVINEEGICTQKCALNW

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			TDIPVAMEHOPPYIIAVLPRIYVEIRTFEPRLLVQSIELQRPFI TSGGSNIIVASNHFVWRLIPVPMATQIQQLQDKQFELALQLA EMKDDSDSEKQQQIHHIKNLYAFNLFCQKRFDESMQVFAKLGTD PTHVMGLYPDLPTDYRKQLQYPNPLPVLSGAELEKAHLALIDY LTOKRSQVLVKKLNDSDHQSSSTPLMEGFTTIKSKKKLLQIIDTT LLKCYLHTNVALVAPLLRLNNHCHIESEHVLKKAHKYSELII LYEKKGLHEKALQVLVDQSKKANSPKCHERTVQYLQHLGTENL HLIFSYSVWLRDFFPEDGLKIFTEDLPEVESLPDRDVLGFLIEN FKGLAIPYLEHIHVWEETGSRFHNCILQLYCEKVQGLMKEYLL SFFAGKTPVPAGEEEGELGEYRQKLLMFLEISSYDPPGRLICDF PFDGLLEERALLLGRMGKHEQALFIYVHILKDRMAEEYCHKHY DRNKDGNKDVYLSLRMYLSPPSTHCLGPIKLELLEPKANLQAA LOVLELHHSKLDTTKALNLLFANTQINDIRIFLEKVLLENAOKK RFNOVLNLLHAEFLRV\QEERILHQOVKCIITEEKVMVCKKK IGNSAFARYPNGVVVHYFCS\KEVNPADT
6841	1	3206	TPSTTGKSNPTSSVPSAAVTPLNESLQPLGDYGVGSKNSKRA REKRDSRNMEVQVTQEMRNVSJGMSSDEWSDVDQDIIDSTPELD MCPETRLDRTGSSPTQGIIVNKAFGINTDSLYHELSTAGSEVIGD VDEGADLLGEFGSMGKEVGNLLLENSQLLETKNALNVVKNDLIA KVDOLSGEQEVLERGELEAAKQAKVKLENRIKELEELKRVKSEA IIARREPKEEAEDVSSYLCTESDKIPMAORRRFTRVEMARVLM RNOYKERLMELQEAVRWTEMRASREHPSVQEKKSTIWQFFSR LFSSSSSPPPAKRPYPSPGNIHYKSPTTAGFSQRRNHAMCPI SAGSRPLEFFPDDCTSSARREKQKEQYRQVREHVRNDDGRLOACW SLPAKYKQLSPNGGQEDTRMKNVVPVYCAPLVEKDPTMKLWCA AGVNLSCGWRPNEDDAGNVKPAFGRDPLTCDREGDGEPSAHTS PEKKKAKELPEMDATSSRVWILTSTLTTSKVVIIDANQPGTVVD QFTVCNAHVLCISSIPASDSDYPPGEMFLDSVNPEDPGADGV LAGITLVGCATRCNVPSNCSERGDTPVLEKGOGEVATIANGKV NPSQSTEEATEATEVFDPGPSEPETATLRPGPLTEHVFTDPAPT PSSGPOPGSENGPEPDSSSTRPEPEPSGDPTGAGSSAAPTMLG AONCWLYVHSAVANWKKCLHSIKLKDSVLSLVHVKGRLVALAD GTLAIFHRGEDGQWDLNHYHMLDLGHPHSIRCMVVYDRVWCG YKXNVHVIQPKTMOIEKSFDAFPRRESQVRCLAWIGDVWVSI LDSTLRLYHAHTHQHLQDVDEIPYVSKMLGTGKLGFSFVRITAL LVAGSRLWVGTTGNGVVISIPLTETVVLHRGQ\LLG\LRANKTSP TSGEG\ARPGG\IIHVG\DDSSDRAARSFIPYCSMAOQALCFH GHRDAVKFFVSVPGNVLATLNGSVLDSPAEGPGPAAPASEVEGO KLBNVLVLSGGEGYIDFRIGDGEDDETEGACDMSQVKPVLKA ERSHIIWQVSYTPE
6842	3	926	RCOCLSATILTDHQLERTPLCAILKQKAPQYRIRAKLRSYKP RRLFQSVKLHCPKCHLLQEVPPHEGDLDIIFQDGATKTPDVKLQN TSLYDSKIWTTKNQKGRKVAHFVKNNGILPLSNECLLLIEGGT LSEICLSNKFNSVIPVRSGHEDLELDDLSAFFLIQGTVHHYGC KQWST*RSIQNLNSLVDKTSWIFSSVAEALGIVPLQYVFMVPT LDDGTGVLEAYLMDSDKFFQIPASEVLMDDDLQKSVDIMDMPC PPGIKIDAYPWLECFIKSYNVTHGTDNQICQOIFDTTVAEDVI
6843	2	851	NHRKVLGSAKRYECNECGKSFAYTSSLIKHRRHTGERPYECSE CGRSFAENSSLIKHLRVHTGERPYECVECGKSFRSSSLLQHQ VHTREPYECSECGKSFSLSRNLIIHQRVHTGERHECGCGKSF SRKSSLIHLRVHTGERPYECSDCGKSFAENSSLIKHLRVHTGE RPYECIDCGKSFRHSSSFRHRQVHTGMRPYK*SKFWKFCPCPG LLLOGORVHTGSRCECDKWGIFFS*NASFFT*KSAPTEEVPE CNECEKAFSPLSLVTTIPT
6844	244	642	EHQLAGFELRKTQTSMSLGTREKTRDVKSTAYLSPOLEDVY QYDVKSEIYSFGIVLWEIATGDI PFQGCNSEKIRKLVAVKRQOE

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			PLGEDCPSELREIIDECAHDFSVRPSVDEILKKLSTFSK*CIK 1
6845	3	1515	VAVRDECYRRHVFWDQDEWMLLFILMCHPETAARLEYRIRITLD GALENAQNLYGQAKFAWESADSGLEVCPEDIYGVQEVHNGAV GLAFELYHYHTTQDLQLFREAGGWDVVRVAEFWCSEVSESPREE KYHLRGVMS PDEYHSGVNSVYTNVLVQNSLRFAAALAOQLGLP IPSQWLAVADKIKVPFDVEQNFHPEFDGYEPGEVVKOADVLLG YPVPFSLSPDVRKNLEIYEAVTSPOGPAMTWSMFAVGWMLKD AVRARGLLDRSFANMAEPFKVWTENADSGAVNFLTGMGGFLQA VVFCTGFRVTRAGVTDPVCLSGISRVSVSGIFYCGNKLNFSF SEDSVTVEVTARAGPWAPHLEAELWPSQSRLSLLPGHKVSFPRS AGRIQMSFPKLPGSSSSSEFPGRFTSDVRDPLQSPWLWTLGSSSP TESLTVDPASE*SGTGASETSLGPSLWFRLLHPPLLGLTLLACHPS PAARLSGKVAHAAPFEKAFCL
6846	213	1256	LYFLKTIK*LNRLAEHP*YENEKLTCLRNTIMEQYTRTEESARG IIFKTROSAYALSQWITENEKFAEVGVKAJHLIGAGHSSEFKP MTONEQKEVISKFRITGKINLLIATTVAEEGLDIKECNIVIRYGL VTNEIAMVQARGRARADESTYVLVAHSGSGVI EHTVNDFREKM MYKAHCVQNMKPEEYAHKILELQMSIMEKKMKTKRNIAXHYK NNPSLITFLCKNCSVLACSGEDIHVIEKMHVNMTPFEKELYIV RENKTLQKKCADYQINGEII CKCGQAWGTMVHKGLDLPCLKIR NFVVVFKNNSTKKQYKKWVELFITFPNLDYSECCLFSDDED
6847	1450	348	SMCWNSDRIEMPLIDLALILYPPSYVPYTGHLSDDSLRSKYCLT WFEDALNGVL*RAEAIQPHCVNAGDRMEFRQKYWNKLOT*LRQQ PPAYGTLTVRSLDTRHCLNEFNFPDPYSKVQRENGVALRCF FGVVRSLDALGWEERQLALVKGLLAGNVFDWGAKEVSAVLESDF YFGFEEAKKQLQERPLVDSYSEWLQRLKGPPIKCALIFADNSG JDJILGVFFVRELLLRGTEVILACNSGPALNDVTHSESLIVAE RIAGMDPVVHSALEERLLLVOTGSSSPCLDLSRLDKGLAALVR ERGADLVVIEGMGRAVHTNYHAALRCESLKLAVIKNAWLAERLG GRLFSVIFKYEVPAAE
6848	19	16	AMWNSLDGIRNIVLSNPKKRNLTSLAMLKSLQSDILHDADSND LKVIIISAEGPVFSSGHDLKELTEEQGRDYHAEVFTCSKVMHM IRNHPVPVIAVINGLATAAGCQLVASCDIYASDKSSFATPGVN VGLFCSTPGVALARAVPRKVALEMLFTGEPISAEALLHGLLNK VVPEAELOEETMRIARKIASLSEPVVSLGKATFYKQLPQDLGTA YYLTSQAMVDNLALRDGQEGITAFLOKRKPVWSHEPV*VEH
6849	70	821	SLGVDGSCLEQGSAPAPRPQTDTS*PVGNNATQOEDLYHQSYEC VCVLFASVPDFKEFYSESNINHEGLECLRLNEIIADFDLLSK PKFSGVEKIKTIGSTYMAATGLNATSGQDAQDAERSCSHLGTM VEFAVALGSKLDVINKHSFNFRVRLVGLNHGPPVAGVIGAQPQ YDIWNGTNNVNASRMESTGVLGKIQVTEETAWALQSLGYTCYSRG VIKVGKGQLCTYFLNTDLTRTGPPSATLG
6850	2	1235	ARGLNHEWTFEKLROHISRNAQDKQELHFLMLSGVDPDAVFDLTD LDVLKLELIPEAKIPAKISOMTNLQELHLCHCPAKVEQTAFSFL RDHLRCLHVKFTDVAEIPAWVYLLKNLRELYLIGNLSENKMI GLESRLRELRLKILHVKSNTKVPSNITDVAPHLTKLVIHNDGT KLLVLNSLKKMMNVAELELONCELERIPHAIFSLSLQELDLKS NNIRTIEEIIISFQHLKRLTCLKLWHNKIVTIPPSITHVKNLES YFSNNKLESFPVAVFSLQKLRLDVS YNNISMIPIEIGLLQNLQ HLHITGNKVDILPKQLFKCIKLRTNLGQNCITSLPEKVGQLSQ LTQLELKGNCILDRPAPQLGQCRMLKKSLVVEDHLFDTLPLEVK EALNQDINIPFANGI
6851	1765	660	VSAQVSAREGENCLGWNADSSQESYKSLAEAEDCYPPSLTLTD LRDLFNQVEQGPLLSCPKAGTDLSMGRAREVGVMAAGLMIGAGA CYCVYKLTIGRDDSEKLEEEEEEEDDDQELDEEEDPIWDFET

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			MARPWTEGDGWTPEGAPGGTEDRPSGGGKANRAHPKQAPFPYE HKNTWSAQNCCKNGSCVLDLSKCLFIOGKLLFAEPKDA GFPSQD INSHLASLSMARNTSPTPDPTVREALCAPDNLNASIESQGQIKM YINEVCRETVSRCCNSFLOQAGLNLISMTVINMMLAKSASDLK FPLISEGSGCAKVOVLKPLMGLSEKPVLAGELVGAQMLFSFMSL FIRNGNREILLETPAP
6852	1	407	RTRGEETYANFIKHNDGKNIFYAARTFATLFAVMFAMYIISGLT GFIGNLSIAVLNLMGLALIFLCTWAYVKYSGEFREIGTVIDQ IAETLWEQVLKPLGDNLMEEENIROSVTNSIKAGLTDOVSHHARL KTD
6853	3	469	GDSCAVCIELYKPNDLVRILTCHNIFKTCVDPWLLHRTCPMC KCDILKALGIEVDVEDGVSLSQVPVSNEIFNSASSHEEDNRSET ASSGSYASVQGTYEPPLEEHVQSTNESLQLVNHEANSVAVDVIPH VDNPTFEEDETNPQETAVREIKS
6854	1148	585	HESYIGTFDPGELCVCAAIOWLQDNASASYFLNRKLVYEFSTQAK PVKNTPLRMWIIYSHHIYQODLRKKI LQVGRRLDVTGFCMTGKPG IICVEGFKEHCEEFWHTIRYPNWKHISCKHAESVETEGNGEDLR LFHSFEELLLLEAHGDYGLRNDYHNMNLGQFLEFLKKHKEHVFCI LFGIESKSSDS
6855	1913	1148	GRVGGVRGRI CSPLSGANEYIASTDTLKTEEVLLFTDQD DDLAK EPTSLFORDSETKGESGLVLEGDKEI HQIFEDLDKKLALASRF YIPEGCIQRWAAEMVVALDALHREGIVCRDLNPNMILLNDRGHI QLTYFSRWSEVEDSCSDAIERMYCAPEVGAITEETEACDWWSL GAVLFELLTGKTLVECHPAGINTHTTLNMPFVWSEARS LIQOL LQFNPLERLGAGVAGVEDIKSHPFPTPDWAELMR
6856	1617	997	VTQLVSVDASTKDSLKKIDRPLFKDFWQOFLDSLKALAVKQOR TVYRLTLVKAWNVDLQAYAVLSLGNPDFIEVKGVTYCGESSA SSLTMAHVPWHEEVVQFVRELVDLIPEYETACEHEHSNCLLIAH RKFKIGGEWWTWINYNRFOELIQEYEDSGGSKTFSADY MARTP HWALFGASERGFDPKDRHORKNKS KAISGC
6857	1	617	KGPEATAMVCVCSEPNCRONHIKPSHSAQTCGSEPTFASAPNH KLMAEQGKTLPSATEDAKEEGLEAQISRLAELIGRLESKALWF DLQORLSDGDTNMHLQLVRQEMAVCPQLSEFLDSLRLQYLRGT TGVNRNCFHITAVRLSDGFTFVIYEFWETEEAWKRHLQSLCKAF RHVKVDTLTSLQFALSRLVPAWCTVGRD
6858	2	669	RSRGIKDFENDPPLSSCGIFQSRIAGDALLDSGIRISSVFASPA LRCVOTAKLILEELKLEKKIKIRVEPGIFEWTKWEAGKTTPTLM SLEELKEANFNIDTDYRPAFPLSALMPAESYQEYMDRCTASMVQ IVNTCPQDTGVILIVSHGSTLDSCTRPLGLPPREC GDFALVR KIPSLGMCFCENKEEGKWEVLNPPVKT LTHCANAAFNRWNWIS GN
6859	1	1150	GETMPKKA KTKAKKKPKRKRSDSSGGYNLSDIIQSPSTGLLKSG KINSVESLPELLTSDSEGSYAGVGSFRDLQSPDFTTG FHSKIE AKVKPYVNGTSPVYSREDLKPWEKSPILKISAPQPIPSNRIDTT SSASWVAGSFSPVSPVVDLRTIMEIEESRQKCGATPKSHLGKT VSHGVKLSQKQKMIALTTKENNSGMNSETVLFTPSKAPKPVN AWASSLHSVSSKSFDFILEEKSVTSHSSGDHVKVSFKGIEN SQAPKIVRCSTHGTGPEGNHISDLPLDSPNPWLSSTSVTAPSM VAPVTFASIVEELQQAALIRSREKPLALIQIEEHAICDILLVF YEAFGNPEEFVIVERTPOGFLAVPMWNKHGC
6860	1889	1515	DKDKKRQKKRGIFPKVATNIMRAWLFQHLTHPYPSEEQKKQLAQ DTGLTTLQVNNWFINARRII VQPMIDQSNRAVSQGAAYSPEGQP MGSFVLGGQHQHMRPAGPMSGMGMNMGMDGQWHYM
6861	1889	1515	DKDKKRQKKRGIFPKVATNIMRAWLFQHLTHPYPSEEQKKQLAQ DTGLTTLQVNNWFINARRII VQPMIDQSNRAVSQGAAYSPEGQP

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6862	2	477	MGSPVLDGQQHMCIRPAGPMMSGMGMMDGQWHYM EEIDREFHNKLLKEDKLEKQEPVNGEDKGDSDVTONSEGNA DEEDPLGPNCYYDKTKSFFDNISCDNRERRPTWAEERRLNAET FGIFLRPNRGRGGYGRGGGLGFRGGRGRGGGRGGTTPAPRGFRG GFRGGRGREFADFEYRXTTAFGP
6863	2216	487	PQEPALKSEFSQVASNTIPLFLPQPNCTKDNPGCKQVCSTVGGS AICSCFPGYAIMADGVSCEDCDECLMGAHDCSRRQFCVNTLGSG YCVNHTVLCADGYILNAHRKCVDINECVTLHTCSRGEHCVNTL GSFHCYKALTCEPGYALKDGECEVDCEAMGTHTCQPGFLCQNT KGSFYCQARQRCMDGFLQDPEGNCVDINECTSLSEPCRPGFSCI NTVGSYTCQRNPLICARGYHASDDGTCVDVNECETGVHRCGEG QVCHNLPGSYRCDCCKAGFORDAFRGCDVNECWASPGRLCQHT CENTLGSYRCSCASGFLAADGKRCEDVNECEAQRCSQECANIY GSYQCYCRQGYQLAEDGHTCTDIDECAQAGILCTFRCLNVPGS YQACPEQGYTMTANGRSCKDVDECALGTHNCSEAETCHNIQGS FRCLRFECPPNYVQVSKTKCERTTCHDFLECONSPARITHYOLN FQTGLLVFAHIFRIGPAPAFGTGTIALNIKGNEEGYFGTRRLN AYTGVVYLQRAVLEPRDFALDVEMKLWRQGSVTTFLAKMHIFT TFAL
6864	2	2533	LADSSPSNLQIIKELLSMHHQPDPAITKEFDYLPVDSRSSSG FVGLRNGGATCYMNAVFOOLYMQPLPESLLSVDDDDTNPDDSV FYQVQSLFCHLMESKLQYVYPENFWKIFKMNKELYVREQQDAY EFTSLIDQMDLYLKKMRDQIFKNTFQGIYSQKICKDCPHRY EREEAFMALNLGVTSCQSLAISLDQFVRGEVLEGSNAYYCEKCK EKRTIVKRTCISLPSVLVIHLMRFGFDWESGRSICYDEQIRFP WMLNMEPYTVSGMARQDSSSEVGENGRSVDQGGGSPRKKVALT ENYELVGVIVHSGQAHAGHYYSFIKDRRGCGKWKYFNDTVIE EFDLNDETLEYECFGEYRPKVYDQTNPYTDVRRRYWNAFMLFY QRVSDQNSPVLPPKSRVSVVRQEAEDLSLSAPSSPEISPCSSPR PHRPNNDRLSILTCLVKKGKGLFVEKMPARIYQMVREDENLKF MKNRDVYSSDYFSVLSLASLNATKLKHPYPCMAKVSLOLAIQ FLFQTYLRTKKLVRDTEEWIATIEALLSKSPDACQWLVEYFIS SEGRELIKIFLLECNVREVRVAVATILEKTLSALFYQDKLKS HQLLEVLALLDKDVPENCKNCAQYFFLNTFVQKQIRAGDLL LRHSALRHMISFLLGASRONNQIRRWSSAQAREFGNLHNTVALL VLHSDVSSQRNVAPGIFKQRPPISIAPSSPLPLHHEVEALLFM SEGKPYLLEVMPALRELTSLLALIMVYCCFCNEHFSFTMLH FIKNQLETAPPHLKNFTQLLHEILVIEDPIQVERVKFVFETEN GLLALMHHSNHVDSSRCYQCVKFLVTLAQKCPAAKEYFKENSHH WSWAVQWLQKKMSEHYWTLOS NVSNETSTGKTFQRTISAQDTLA YATALLNEKEQSGSSNGSESSPANENGDKHLQQGSSESPMMIGEL RSDLDDVDP
6865	1820	1242	DPERWKHLSKVTPPGSSVSTTPVQVRLQSPQSQSGSMMPSCNRS CSCSRGPSVEDGKWKYGVRSYLFYEGYAVPPKLEGI GEGEFLV LDQRAADYNQALGTCLAGTALCAAGVLLAICLFWAMIGWLSQ DTKAEPDPEADSHVEVFGDEPEQQLSPIFRNASGQSWFSPAS PFGQSSVQTIQPKRDS
6866	1571	491	DCPRPRYTYGLRATCMRDLDWAWINAVSAFKALEQDLPVNIK F IEGMEEAGSVALEELVEKEKDRFFSGVDYIVISDNLWISQRP AITYGTRGNSYFMVEVKCRDQDFHSGTFGGILHEPMADLVALLG SLVDSSGHI LVPGIYDEVVPLTEEEINTYKAHLDLEEYRNSSR VEKFLFDTKEEILMHLNRYPSLSIHGIEGAFDEPGTKTVIPGRV IGKFSIRLVPHMNVSAVEKQVTRHLEDVFSKRNSSNKMVVSMTL GLHPWIANIDDTQYLAAKRAIRTVFGTEPDMIRDGSTIPIAKMF QEIVHKSVVLIPLGAVDDGEHSQNEKINRWNYIEGTKLFAAFFL EMAQLH

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6867	2833	1704	GTRIMSQPKQKELAGFVRQXMLLDYSVVMGRCPQESRSRSPORSP LQSAESSPTAGKKLPEVPPSEEEQEAWVNALLGRI FWDFLGK YWSDLVSKKIOMKLSKIKLPYFMNELTLELDMGVAVPKILQAF KPYVDHOGWLIDLEMSYNGSFLMTLETKMNLTKLGKEPLVEALK VGEIGKEGCRPRAPCLADSDESSSAGSSEEDDAPEPSGGDKQL LPGAEGYVGGHRTSKIMRFVDKITKSKYFQKATETEFIKKKIEE VSNTPLLLTVEVQECRGTLAVNIPPPPTDRVWYGRKPPHVELK ARPKLGEREVLVHVTDWIEKKLEQEFQKVFVMPNMDVVITIM HSAMDPRSTSCLLKDPPEAADQP
6868	1	341	RPTRPPTREEIKNLILPYISDMNFVQDLCEDFYELFKTDKGF KATFESQMSVMRGQILNLTQALRDGKSPFQLVQIPCVIVERSQ GSQGRIVHLSNSFTQTVNCRKPFSSW
6869	3	1619	MYMERMDKRALISFWESVEHLKNANKNEIPQLVGEIYQNFVES KEISVEKSLYKEIQOCLVGNKGIEVFYKIQEDVYETLKDRYPS FIVSDLYEKLLIKEEKHASOMISNKDEMGRDEAGEEAVDDGT NQINEQASFVANKLRELNEKLEYKRQALNSIQNAPKPKKIVSK LKDEIILIEKERTDLQHMARTDWCENLGMWKASITSGEVTEE NGEQLPCYFVMVSLQEVGGVETKNWTVPKRLSEFHNLRKLSEC VPSLKKDQLPSLSKLPFKSIDHTFMEKFNQNLKFLQNLSDER LCQSEALYAFSPSFDYLVKVIDVQGGKNSFSLSSFLERLPRDF SHQEEETEEDSDLSYGDVDRKDALAEPCFMLIGEIFELRGM FKWVRRTLIALVQVTFGRITNKQIRDTVSWIFSEOMLVYINIF RDAFWPNGLAPPTTIRSKEOSQETKQRAQOKLENIPDMLOSL VGQONARHGIIKIFNALQETRANKHLLYALMELLIELCPELRV HLDQLKAGQV
6870	1	1566	MAAVVAATRWQQLLLVLSAAGMGASGAPQPPNILLMLMDMGWG DLGVYGEPSRETPNLDRMAAEGLLFPNFYSANPLCSPSRALLT GRLPINRGFYTTNAHARNAYTPQEI VGGIPDSEQLPELKKAG YVSKI V GKWHLGHRPQFHPLKHGFDEWFGSPNCHFGPYDNKARP NIPVYRDWEMVGRYEEFPINLKTGEANLTQIYLQALDFIKRO ARHHPFFLYWAVDATHAPVYASKPFLGTSQGRGYGDAVREIDDS IGKILELLQDLHVADNTFVFFTSDNGAALISAPEQGGSNPGFLC GKQTTFFEGGMREPALAWWPGHVTAGQVSHQGSIMDLFTTSLAL AGLTPPSDRAIDGLNLLPTLLQGRMLDRPIFYRGDTLMAATLG QKHAHFWTWTNSWENFRQIDFCPGQNVSGVTTHNLEDHTKLPL IFHLGRDPGERFPLSFASAEYQEALESRTSVVQOQHEALVPAQP QLNVCNWA VMNWAPPGEKLGKCLTPPESIPKKCLWSH
6871	209	1126	RMSLNPPIFLKRSEENSSKFVETKQSTTSIASEDPLQNLCLAS QEV LQKAQQSGRSKCLKCGGSRMFYCYTCYVPVENVP IEQIPLV KLPLKIDI I KHPNETDGKSTAIHAKLLAPEFVNIYTYPCIEYE EKDHEVALIFPGQSIKIDISFHLQKRIQNNVRGKNDPDKPS FKRKRTTEEQEFCDLNECKGKGTLLKKIIFIDSTWNQTNKIFTDE RLQGLLQVELKTRKTCFWRHQKGPDTFLSTIEAIYYFLVDYHT DILKEKYRGQYDNLFFYSFMYQLIKNAKCSGDKETGKLTH
6872	880	459	FGLMVVLSLIFMKGNCVREDLIFNLFKLGLDVRETNGLFQNT KKLITEVFVRQKYLEYRRIPYTEPAEYEFWNGPRAFLET SKMLV LRFLAKLHKDPQSWPFHYLEALAECEWEDTDEEDPTGDSAHG PTSRPPPR
6873	1929	955	DEQAVLCSKDKTYDLKIADTSNMLLFI PGCKTPDQLKKEDSHCN IIHTEIFGFSNNYWE LRRRRPKLKKLKLMLNYPYEGPDSQKEK DSNSSKYTTEDLLDQIQASEEIMTQLQVLNACKIGGYWRILEF DYEMKLLNHVTQLVDSESWSGKVPLNTCLQELGPLPEEMIEH CLKCYGKKYVDEGEVYFELDADKICRAAARMLLQNAVKFNLAEF QEVWQQSVPEGMVTSIDQLKGLALVDRHSRPEIIFLLKVDDLPE DNQERFNSLSLREKWTEDDIAPYIQDLCEKQITIGALLTKYSH SSMQNGVKVYNSRRPIS

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6874	1	307	DSIADHVNSAAVNVEEGTKNLGKAAKYKLAALPVAGALIGGMVG GPIGLLAGFKVAGIAAALGGGVLTGFTGGKLIQRKKCKMMEKLTS SCFDLPSQTDKKCS
6875	1688	349	VIGTGERGNSASEKWEIMFNEELGDPFIIHISISLLNAEEHSIA TLLRIEKEELDMKSGSFYVSLEWVTISKKNQDNKAYEIIKRDI LRKXSVPHYAAIEPDGNGLMIVSYKSLTFVQAGDLEENMEDI SEKKEPLYWQOTEDDLTVTIRLPEDNTKEDIOIQFLPDHINI VLKDHQFLEGKLYSSIDHESSTWIIKESNSLEISLIKKNEGLTW PELVIGDKQGELIRDSAOCAAIARLMLHLSSEELNPNPDKEKPP CNAQEELEECDIFFEESSSLCRFDGNTLKTTHVNLGSLNQLFSV IVDPKEMPCFCLRHVDALLWQPHSSKQDDMWEHIATFNALGYV QASKRDKKFFACAPNYSYAALCECLRRVFIYRQAPAMSTVLNLR KEGROVQVAKQQVASLETNDPILGFQATNERLFVLTKNLFIL KVNTEN
6876	41	1285	VGEMTLIWRHLRLCLVTSAPRILEMHPFLSLGTSRTSVTKLS LHTKPRMPCCDFMPERYQVIFLVNSGSEANELAMLMARAHSNNI DIISFRGAYHGCSPYTLGLTNVGIYKMEPLGGTGCOFTMCPDVF RGPWGGSHCRDSPVQTIKRCSCAPDCCQAKDQYIEQFKDTLSTS VAKSIAGFFAEPIQGVNGVQYKPGFLKEAFELVRARGGVCIAN EVCTGFGRLGSHFWGFOTHDVLPDIVTMAKGIENGFFEMAAVITT PEIAKSLAKCLQHFNTFGGNPMACAIGSAVLEVIKEENLQENSQ EVGTYMLLKFAKLRFDEFIVGDVRGKGLMIGIEMVQDKISCRPL PREEVNIHEDCKHMGLLVGRGSIQSQTFRAPSMCITKPEVDF AVEVFRSALTQHMERRAK
6877	1	778	GTSPSPARAYAPPTERRFYQNVSIQEGGFEINLHRKLKTP QAKLFTVPSEALAIATVWDSQODTIKYTTMHLTLCNTSLDN PTQRNKDQLIRAAVKFLDITICVRVEEPETLVELQRNEWDPII EWAEKRYGVEISSSTSIMGPSIPAKTREVLVSHLASYNWALQG IEFVAAQLKSMVLTGLIDLRILTVEQAVLLSRLEEEYCIQKWN IEWANDYELQELRARTAGTLFIHLCESTTVKHLLKE
6878	931	263	QTLQDGFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGN LEEDTVTLEVLVAPVPSCEVPSSALSGLTVVELRCODEKGNPAP EYTWFKDGIIRLENPRLGQSSTNSSTMTKTGTLOFNTVSKLD TGEYSCEARNVGYRRCPGKRMQVDDLNISGIIAAVVVVALVIS VCLGLGVCAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSF II
6879	3	845	IRVIGESDIMQEFLESSEDENYNGVSDVELRVLPDGTTVTVRVK KNSTTDQVYQAIKAAKVGMDSTTVNYFALFEVISHSFVRKLAPNE FPHKLYIQNYTSAPVGTCLTIRKWLFTTEEEILLNDNLAVTYF FHCAVDDVKKGYIKAEKSYQLQKLYEQKVMYMLNMLRTCEGY NEIIPHCACDSRRKGHVITAIISITHFKLHACTEEOLENOQVIA FEKDEMQRWDTDEEGMAFCFEYARGEKKPRWVKIFTYPFNYMHE CFERVFCELKWRKEEY
6880	2110	1437	RKDNCTAKEWTFPEAKWNTARVFSHIRLGMGHVLIIVOCFISS MANIYNEKILKEGNQLTESIFIQNSKLYFFGILFNGLTGLQRS NRDCEKNCGFFYGHRAFSVALIFVTAFOGLSVAFILKFLDNMFH VLMAQVTVIIITTVSVLVDFRPSLEFFLEAPSVLLSIFIYNAS KPCVFEYAPRQERIRDLSGNLWERSSSGDGEELERLTKPKSDESD EDTI
6881	2638	2244	NDSKVEDJHVITGALKMFFRELPEPLTFNHFNDFVNAIKQEP QRVAVKDLIRQLPKPNQDTMQLFRHLRRVIEGKKNRMTYQS IAIVFGPTLLKPEKETGNIAVHTVYQNIQVILLLELSSIFGR
6882	1	850	GIPFAQLWIYPVKSCKGVPSSEACTAMGLRSGNLDRFNLVIN QENGMVTAQREPLVLISLTCDGDTLTLAAYTKDLLLPKTPPT TNAVHKCRVHGLEIEGRDCGEATAQWITSFLKSOPYRLVHFEPH MRPRRPHQIADLFRPKDQIAYSSTSPFLILSEASLADLSNRLEK

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			KVKATNFRFNIVISGCDVYAEDSWDELLIGDVELKRVMACSRCLTTVDPPDTGVMRSRKEPLETLKSYRQCDPSEKLYGKSPLEGGYFVLENPGTIKVGDPVYLLGC
6883	2754	2256	NEKLKLNQNLKLFITLTQVLSLHGWGPGIHLQKEGAPVTONRALCLLYDLAYLNIIVLTAKGDEVKSGRKPESRIEKTVDHLEALIDPFDDLVFTPHLNSNLHRLVQRTSVLFGLVTGTENQLAPRSSTFNSQEPHNILPLASSQIRFGLPLSMTSTRKAKSTRNIETKAQYDANC
6884	?	99	EFERVTAEAVKPRETSEPRAAAQRFCEKFPFL
6885	257	1554	STGQFWHVTDLHLDPTYHTDDHTKVCASEKGANASNPFGPDVLCDSPLYQLILSAFDIKNSGQEASFMWTGDSPPHVPVPELSTDVINIVITNMTTTIQSLFPNLQVFPALGNHDYWPQDQLSVVTSKVYNANANLWKPWLDEEAISTRKGGFYSSQKVTNPNLRIISLNTNLYYGPNIIMTLNKTDPANQFEWLESTLNNSOONKEKVYIIAHVPVGYLPSSQNI TAMREYYNEKLIDIFOKYSDVIAGQFYGHTRDSIMVLSDDKKGSPVNSLFVAPAVTPVKSVLEKCTNNPGIRLFQYDPRDYKLLDMLQCYLNLTEANLKGESIKWLEYILTQTYDIEDLQPESLYGLAKQFTILDSKQFIKYNYFFVSYDSSVTCDKTKAFQICAIMNLDNISYADCLKOLYIKHNY
6886	?	1341	QCGGIPCREGGSSRPLEEGTGSSPACVRGAAPGSEDAFYPTRAKQARVSQELKKAARTVSISEGPDTLGDGMRRERRETLALAPEPEPLEKEACEKWKRPFRSASATSLTSLHCVDDVVKGLLDFKRRGHISGGAPEDORYCIPVCVAARLPTRAQDVLDAHLSEVNAVRFPGPNSSLATGGADRLIHLWNVVGSRLEANQTLLEGAGGSITSVDPSGYCVLAATYNQAAQLWKVGEAQSKETLSGHKDKVTAARFKLTRHQA VTGSRDRITVKEWDLGRAYCSRTINVLSYCNDDVVCDDHIIISGHN DOKIRFWDSDRGPHCTQVIVPQGRVTSLSLSDQLHLHLSCSRDNLT KVIDLDRVSNIRQVFRADGFKCGSDWTKAVFSPDRSYALAGSCD GALLYIWDVDTGKLESRLQGFHCAAVNAVAVWCYSGSHMVSVDQGR KVVWLQ
6887	1047	116	WTAAPSQKFFWEAGAVPGDPLSTGCSQAOLGGCCPRGPWGPQHGQORAAGPTLPRGERGGPQSGPGLAAQTPPTSKQVAVRAFLTG TYRSQS PRSPAGPFRGGTGWPEPAVCLCVAVGPQRLSSPGLVY NASGSEHCYDIYRLYHSCADPTGCGTGPDAWYQACTEINLT PASNNVTDMFPDLPTDELKQRYCLDTGWVWFRPDWLLTSFWGG DLRAASNIIFSNGLDPWAGGGIRRNLSASVIAVTIOGGAHLD LRASHPEDPASVVEARKLEATIIGEWVKAARREQQPALRGPPRL SL
6888	1	992	FVAYVKEIPHIIVVTHCLLNPHALVIKTLPTKLRDALFTVVRVINFIKGRAPNHLFQAFEEIGIEYSVLLFHTEMRWLSRGQILTH IFEMYYEINQFLHKKSSNLVDGFENKEFKIHLAYLADLFKHLNE LSASMQRTGMNTVSAREKLSAFVRKFPFWOKRIEKNFTNFPFL EEIIVSDNEGIFIAAEITLHLQQLSNFFHGYFSIGDLNEASKWILDPFLFNIDFVDDSYLMKNLAEELRASQOILMEFETMKLEDFWC AQFTAFPNLAKTALEILMPFATTYLCELGFSITFTFQNKVPEAALLLSDDIRVAISKVPSFLGHH
6889	1	1534	LFLNQIKEEREQDNSES PNGRTSPLVSONNEQGSTLRDLLTT AGKLRVGSTDAFIAPVYSMGAPSSSKSGRTMPNILLDDIIASVV ENKI PPSKTS KINVKPELKEEPEESIISAVDENNKLYSDIPHSW ICEKHILWLKDYKNSSNWKLFKECNKQCFVAVVSGVHKMNISL WKLSEISLDFGDHQA DLLNCKDSIISANVKEFWDGFEVSKRO KXKSGETVVLKLDWPSGEDFKTMMPPARYEDLLKSLPLPEYCNPEGFNLAHLPGFFVRPDLCPRLCSAYGVVAAKDHDIGTTNLHI EVSDVVNIIIVYVGIKNGNLSKAGILKKFEEEDLDDILRKRLK DSEIIPGALKHIIYAGKDVDKIREFLQKISKEOGLVLPEDHPIR DQSWYVNNKLRQRLLEBYGVRTWTLIQFLGDAIVLPAGALHQVC

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			NFHSCIQVTEDFVSPHVLVESFHLTOELRLLEEINYYDDKLQVK NLYHAVKEMVRALKIHEDEVDDMEEN
6890	3	667	THACGMWIPLYLEKALVVEKTAETCNSPPCGAKDSLIFGAITCF TGFLGVDTGAGATRWCLKTQADPLVCAVGMGSAIFICLIFV AAKSSIVGAYICIPVGETLLFSNWAITADILMYVVIPTRRATV ALQSFTSHLLGDAGSPYLIGFISDLIRQSTKDSPLWEFLSLGYA LMLCPFVVVLGGMFFLATALFFVSDRAREQQVNQLAMPASVK V
6891	1980	1262	LRHQELLKSKELKLLRGITTESIIHIGLAAGKEQFMODASNVMO LLLKTQSHLYNMEDNNPEVRQAAAYGLGVMAQFGDDYRSLCSE AVPLLVKVVKRAHSKTKKNIATENCISAIGKILKFKPNCVNVD EVLPHWLSWLPHEDEKEAIQTLFCLDLIESNHPVVGPNNSN LPKIIISIIAEGKINETINYEDPCAKRLANVVRQVQTSSEDLWLEC VSQLDDEQEQEALQELLNFA
6892	3	876	RSVAASGPGAWGTDHYCLELLRKRDEYEGYLCSLLLPAESRSSV FALRAFNVLAQVKDSVSEKTIGLMRMQFWKKTVEDIYCDNPPH OPVAIELWKAVKRHNLTKRWMKIVDEREKNLDDKAYRNIKELE NYAENTQSSLLYLTLLEILGIKDLHADHAASHIGKAQGIIVTCLRA TPYHGSRKRVFLPMDICMLHGVSQEDFLRRNQDXNRDVIYDIA SQAHHLKHARSFHKTVPVKAPFAFLQTVSLEDFLKKIQRVDFD IFHPSLQKNTLLPLYLYIQSWRKY
6893	1	842	DGERKSMSVERTFSEINKAEQYSLCOELCSELAQDLQKERLKG RTVTIKLKNVNFVKTRASTVSSVSTABEIFAIAKELLKTEID ADFPHLRLRLMGVRISSFPNEEDRKHQQRSIIGFLOAGNQALS ATECTLEKTDKDKFVKPLEMSHKKSFFDKKRSEKRWSHQDTFKC EAVNKQSFQTSQPFQVLKKMMENLEISENSDDCQILTCPVCFR AQGCISLEALNKHVDECLDGPSISENFKMPSCSHVSATKVNKKE NVPASSLCEKQDYEAH
6894	1742	1463	TTLCKPLVPREHQFYETLPAEMRKFTPOYKGRKSQLEGLPHWRG DVRDRGHRPWQPSLESLPPTLCFPLSSSFSSSWPSAQLHTPS VFNPW
6895	2379	478	VTVVELCDLASPTALLIMRTVLDLIVEDLQSTSEDEKQQYTSQT TRLLALLALASHKACKLAILHLINGTIKGDERYAEIFQDLAL VRSPGDSVIRQQCQVEYVTSILQSLCDQDIALILPSSSEGSISEL EQLSNSLPNKELMTSICDCLLATLANSESSYNCLLTCVRTMMFL AEHDYGLFHLKSSLRKNSSALHSLKRVVSTFSKDTGELASSFL EFMRQILNSDTIGCCGDDNGLMEVEGAHTSRTMSINAAELKQLL QSKEESPENLFLELEKLVLEHSKDDDNLDLSLLDSVVGLKQML SGDPLPLSDODVEPVLSAPESLQNLFNNTAYVLADVMDDQLKS MWFTPFQAEIEDTDLVLKVDLIELSEKCCSDFDLHSELSERSFL SEPSSPGRTKTKGFKLGKHKHETFITSSGKSEYIEPAKRAHV PPPRGRGRGGFGQGIKPHDI FRQKQNTSRPSPMHVDDFVAES KEVVPQDGIPPPKRPVKVSKISSRGGFSGNRGGRGAFHSQNR FTPPASKGNYSRREGTRGSSWSAQNTPRGNYNESRGGQSNFNRG PLPPLRPLSSTGYRPSPRDRASRGGRGLGPSWASANSRGGSGRG KFVSGSGRGRHVSFTR
6896	1	555	GNVIOKKKYNKQHIIPLENVTIDSIKDEGLRNGWLKTPTKS FAVYAATA TEKSEWMNHINKCVTDLLSKSGKTPSNEHAAVVVPD SEATVCMRCQAKFTPVNRRHCRKCGFVVCGPCSEKRFLLPSQ SSKPVRI CDFCYDLLSAGDMATCQPARSDSYSCSLKSPLNDMSD DDDDDDSSD
6897	3	920	GDGLMHEVVNGLMERPDWETAIQKPLCSLPAGSGNALAASLNHY AGYEQVTNEDLLTNCTLLLCRRLSPMNLSSHTASGLRLFSVL SLAWGFIADVLESEKYRRLGEMRFTLTGFLRLAALRTYRGRLA YLPVGRVGSKTASPVVVQOGPVDHLVPLEEPVPSHWTVPDE DFVLVLALLHSHLGSEMFAAPMGRCAAGVMHLFYVRAGVSRAML

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			LRLFLAMEKGRHMEYECPLYVYVPVVAFRLEPKDGKGVFAVDGE LMVSEAVCGQVHPNYFWMVSGCPEPPSWKPOQMPFPPEEPL
6896	919	346	OKTVTAVASLLKGRQGIYTENERRMGAIVKIRFFKIMLVLIICW LSNIIINESLLFYLEMQTDINGGSLKPVRTAAKTTWFIMGILNPA QGFLLSLAFYGTGCSLGFOSPRKEIQWESLTTSAEAGAHPSFL MPHENPASGKVSQVGGQTSDEALSMLESGSDASTIEHTASESC NKNEGDFALPTHGDL
6899	120	827	MKVRKKNNDAYLLDKNKINMDCFISCFKKMLTTLMFHSHGILSL LEHGEEYTFSLPCAYARSILTVPWVELGGKVSVNCAKTGYASAI TFHTKPFYGGKLRVTAEVKHNITNTVVCRVQGEWNSVLEFTYS NGETKYVDLTKLAUTKKRVRLEKQDPFESRRLWKNVTDLSLRES EIDKATEHKHTLEERQORTEERERTETGTPWKTYFIKEGDGWVY HKPLWKIIPPTQPAE
6900	3	451	TEVLGSGKGIHELRSSTSALHHALEESASLLTMFWRAALPSTHIP VLPGKVGESTERELLELRKTVSQEQLLQSTTEHLKNANQQKES MEQFIVSOLTRTHDVLKARTNLEVRKLLHQSEAPSLSPTHHHP LADLVGDSWPAIRFOEK
6901	1	201	DDNMVQRLETDFKMTLQQQSTLEQWAAWLDNMVMOALKPYEGRP SFPKAARQFLKWSFYRYHLGFS
6902	2	267	GAPPPPPSQPPRQPPQAAPSEPHSDLTNPFSSALEGQAGAOGA SDMEPESLDLLPELTNPEDELLSYLDPDLPSNSNDLLSLFENN
6903	1	149	RINQVYRQSGPTGIHILVIDOMVQNFQDESCFLFSTVKAESSDGI HIILK
6904	464	2092	MEASLPVSLSCVLACGDVEGKFDILFNVRQAIQKKSNGFDLLC VGNFFGSTQDAEWEEYKGTGKKAPIQTYVLGANNQETVKYQDA DGCELAENITYLGRKGIFTGSSGLQIVYLSGTESLNEPVPGYSF SPKDVSSLRMMLCTTSQPKGVDILTSPWPCKVGNFGNSSGEVD TKKCGSALVSSSLATGLKPRYHFAALEKTYERLPRYRNHIIQEN AOHATRFIALANVGNPEKKKLYAFSIVPMKLMDAELVKQPPD VTENPYRKSGQEASIGKQILAPVEESACOFFDLNEKQGRKRSS TGRDSKSSPHPKQPRKPPQPGPCWFCLASPEVEKHLVNNIGTH CYLALAKGGLSDDHVLILPIGHYQSVVLSAEVVEVEVEKYKATL RRFFKSRGKWCVVFERNYKSHHLQLOVIVPISCSTTDDIKDAF ITQAEQQIELLEIPEHSDIKQIAQPGAAYFYVELDTGEKLFHR IKKNFPLQFGREVLASEAILNVDPKSDWRQCQISKDEEETLARR FRKDFEPYDFTLDD
6905	1	226	VSKTGEAETITSHYLFALGVYRTLYLFNWIWRYHFEGFFDLIAI VAGLVQTVLYCDDFFLYITKVLKGGKLSLPA
6906	3	611	SYDDHNGHIDFITAAENLRKMYSEIAPDRFKTKRIAGKIIPAI ATTTATVSGLVALEMIKVTGCPFEAYKNWFLNLAIPIVVFETET TEVRKTKIRNGISFTIWRWTVHGKEDFTLLDFINAVKEKYGIE PTMVVQGVKMLYVPVMPGHAKRLKLTMHKLVKPTTEKKYVOLT SFAPDIDGDEDLPGPPVRYYSHTD
6907	2	2228	LRGVVVAAGAFRFSSGEESTSEILMSRRSQRLTRYSQGGDDGS SSSGSSVAGSQSTLFKDSPLRTLKRKSSNMKRLSPAPQLGPSS DAHTSYYSSESLVHESWFPPRSLEELHGDANWGEDLRVRRRGT GGSESSRASGLVGRKATEDFLGSSSGYSSSEDDYVGYSDDVQOSS SSRLRSASVRAGSLLWMVATSPGRLFRLLYWWAGTTWYRLTTAA SLLDVFLVTRRFSSSLKTFWFLPLLLLTCLTYGAWFYFPGLO TFHPALVSWWAAKDSRRADGWEARDSSPHEQAEQRMVSRVHSL ERRLEALAAEFSSNWQKEAMRLERLELRQAPGQGGGGGLSHED TLALLEGLVSRREAAKEDFRRETAARIQEEALSALRAEHQQDSE DLFKKIVRASQSEARIQQLKSEWQSMTOESFOESSVKELRRL QLAGLQQELAAALAKQSSVAEEVGLLPQOIQAVRDDVESQFPA WISQFLARGGGGRVGLLQREMOAQLRELESKILTHVAEMQGS

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			AREAAASLSLTLOKEGVIGVTEEOVHHIVKQALQRYSEDRIGLA DYALES GGASVISTRCS EYETKTALLSLFGIPLWYHSQS PRVI LQPDVHPGNCWAFQGGPQGFVVRLSARIRPTAVTLEHVPKALSP NSTISSAPKDFAI FGFDLQOEGTLLGKFTYDQDGEPIQT FHF QAPTMTATYCVVELRILTNWGHPEYTCIYRFRVHGEPAH
6908	3	780	QVPSAAWLMVAVCGLSRLGLGSRRLGQCGFAARLLYFRFQSRG PQGVEDGDKPQSSKTPRIPIYTKTGDKGFSSTFTGERRPKDD QVFEAVGTTDELSSAIGFALELVTEKGTFAEELQKIQCTLQDV GSALATPCSSAREAHLKYTTFKAGPILELEQWIDKYTSQLPPLT AFILPSGGKISSALHFCRAVCRAERRVPLVQMGETDANVAKF LNRISDYLTFLARYAAMKEGNQEKIYKNDPSAESEGL
6909	3	405	GRLLAVGTDLYGQRSSAPEQELLVODATPVSNLLPEKAFSDIF SPYLRTGINKMMQAVRQAFQDQDDRTWDGRPLTMAATFDDCLYA LCVVDTIKSSQTGEWQNIAMTEEPESPAYLISEAMRRSRMS LYC
6910	1	1068	LVPVVVIESYYYGKLVIAPLNIVLYNIFTPHGPDLVGTPEWYFY LINGFLNFVAFALALLVPLTSLMEYLLQRFHVQNLGHPYWL LAPMYIWFIFFIQPHKEERFLFPVYPLICLCAVALSALQHSF LYFQKCYHFVFPQRYRLEHYTVTSNWLALGTVFLFGLLSFSRSVA LFRGYHGFLLDLYPEFYRIATDPTIHTVPEGRPVNVCVGKEWYRF PSSFLLPDNWOLOFIPSEFRGQLPKPFAEGPLATRI VPTDMNDQ NLEEPSRYIDISKCHYLVLDLTMRET'PREPKYSSNKEEWISLAY RPFLDASRESKLLRAFVVPFLSDQYTVVYNYTILKPRKAKQIRK KSGG
6911	1184	966	GEDAEEMETGNVANLISIFGSSFSGLLRKSPGGGREGEEEGEESG PEAAEPGQCCDKPVL RDMNPWSTAIVAF
6912	1	844	AMKPVETHSFOMLFTILSTGSALKAQSYEDAYRCIKSSIIILGSI SGGTDIISCFMGNHNSLPVYKGEIQARNLGMAVEAWNEEGKAVW GESGELVCTKPIPCQPTHFWNDENGKRYKAYFSKFPGIWAHGD YCRINPKTGGIVMLGRSDGTLPNGVVRFGSSEIYNIVESFEEVE DSLCPVQYKYREERVILFLKMASGHAFQPDLVKRIIDAIRMGL SARHVPSLJLETGIPYTLNGKKVEAVKQIIAGKAVEOGGAFS NFETLDLYKDIPELQGF
6913	1643	1558	KKSHEESHKEELSYGAOASLPLPCSDFR
6914	1251	615	ELAAECKSAGYPGTLPYRCDSLNEEDILSMFSAIRSOHSQVDI CINNAGLARPDTLSSGSTSGWKDMFNVNVLALSICTREAYQSMK ERNVDDGHIININMSGHRVPLSVTHFY SATKYAVTALTEGLR QELREAQTHIRATCISPGVETQFAFKLHDKDPEKAAATYEQMK CLKPEDVAEAVIYVLSTPAHIQIGDIQMRPTEQVT
6915	254	652	GRSLSFKTFLIHWLISIIYOGGILMYGALVLFSEFVHVVAISFT ALILTELLMVALTVRTWHWLMVVAEFLSLGCVVSSLAFLENYFD VAFITTTVTLWKVSAITVVSCLPLYVLKYLRRLSPSPSYCKLAS
6916	254	652	GRSLSFKTFLIHWLISIIYOGGILMYGALVLFSEFVHVVAISFT ALILTELLMVALTVRTWHWLMVVAEFLSLGCVVSSLAFLENYFD VAFITTTVTLWKVSAITVVSCLPLYVLKYLRRLSPSPSYCKLAS
6917	254	652	GRSLSFKTFLIHWLISIIYOGGILMYGALVLFSEFVHVVAISFT ALILTELLMVALTVRTWHWLMVVAEFLSLGCVVSSLAFLENYFD VAFITTTVTLWKVSAITVVSCLPLYVLKYLRRLSPSPSYCKLAS
6918	28	921	PEAGTRSWREPDPEDLRRFLLSAACRSFPQWLPGGGGGQVSSCS DTDVPYLLAVKSEPGRFAERQAVRETWGSAPGIRLLFLLGSP VEAGPDLDSLVAWESRRYSDDLWDFLDVFPNQTLKDLLLAW LGRHCTVSFVLRAODDAFVHTPALLAHLRALPPASARSYLGE VFTQAMPLKPKGGPFYVPESFFEGGYPAYASGGGYVIAGRLAPW LLRAAARVAPFPFEDVYTGLCIRALGLVPOAHPGFLTAWPADRT ADHCAFRNLLLVRPLGPOASIRLWKQLQDPRQLC

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6919	850	41	QGRRELSGSVFCFFIQOEPKEMTLSEYHERVRSQGOOLQOQLOA ELDKLHKEVSTVRAANSERVAKLVFORLNEDFVRKPDYALSSVG ASIDLQKTSETYADRNTAYFNNRFSFWNYARPPTVILEPHVFP NCWAFEGDQGGVVIQLPGRVOLSITLQHPPPSVEHTGGANSAP RDPVAVFLLSFETHQGLQVYDETEVSLGKFTFDVEKSEIQTFHL QNDPPAAPPKVKIQILSNWGHPRFTCLYRVRAHGVRTSEGAEGS AQGPH
6920	1418	591	EAQGFPSKVHLGLKKKK
6921	2	1711	MNATRSEEQFEVINHAETLRKMEYLYKEKQLCDVLLIAGHLRI PAHRLVLSAVDYFAAMFTNDVLEAKQEEVRMEGVDPNALNSLV QYAYTGVLQKEDTIESLLAAACLLQLTQVIDVCSNFIKQLHP SNCLGIRSFQDAQGCTELLNVAKYTMHFIEVIKNQEFLLLP NEISKLLCSDINVPDEETIPHALMQWVGHDVONROGELGMLLS YIRLPLLPQADLETSSMFTGDLECKLLMEAMKYHLLPERR SMMOSPRTKPKKSTVGALYAVGGMDAMKGTITIEKYDLRTNSWL HIGTMNGRRQLQGVAVIDNKLYVVGGRDGLKTLNTECFNPVKG IWTMPMPMSTERHGLGVATLEGPMYAVGGHDGWSYLNTERWDP EGROWNYVASMSTPRSTVGVALNNKLYAIGGRDGSSCLKSMEY FDPHTNKWSLCLPMSKRRGGVGATYNGFLYVVGHDAPASNHC SRLSDCVERYEPKGDWSSTVAPLSVPRDAVAVCPGLDKLYVVG YDGHYTLNTESYDAQRNEWKEEVPVNIAGRAGACVVVKLP
6922	1075	365	LTPPAGIRHEVDREREREREREREKFPDSTGSELKQNIHSIT GLPPAMQKVMYKGLAPEDKTLREIKVTSGAKIMGGGSTINDVLA VNTPKDAAQQAQAEENKKEPLCRQKQHRKVLDKKGPEDEVMSV KGAQERLPTVILSGMYNKSGGKVRITFKLEQDQLWIGTKERTEK LPMGSIKNVVSLEPIEGHEDYHMMAPQLGPTEASYVWVWPQY VDALKDTVLGKQYF
6923	2469	1660	LGFLCFLPDTLCVLERDTLSTRESRLFGAVVRWAEAEQORQ LPVTFGNKQKVLGKALSIRFPMTIEEFAAGPAQSGILSDREV VNLFLHFTVNRPRVEYIDRPRCCLRGKECCINRFQVESRWGY SGTSDRIRFTVNRISIVGFLYGSIHGPTDYQVNIQIIEYEKK QTLGQNDTGFS CDGTANTFRVMFKEPIELPNVCYTACATLKGP DSHYGTGKLKVVHETPAASKTVFFFFSSPGNNNGTSIEDGQIP EIIFYT
6924	2210	1235	PEERVICFVEYVLTAFHEGRKALAKKYPNPIIGETFHCSWEVP KDRVKPKRTASRSPASCHHEPMADDPKSKYKLRFAEQVSHHPP ISCFYCEEEKLVCNTHVWTKSKFMGMSVGVSMIGEVLRLE HCEEYVFTLPSAYARSILTI PWVELGGKVSINCAKTGYSATVIF HTKPFYGGKVHVAEVEKHNPNTIVCKAHGEWNGTLEFTYNNG ETKVIDTTTLFVYPKIRPLEKQGPMSERNLWREVTRYLRGDI DAATEQKRHLIEKQVVEERKRENLRTPWKPKYFIQEGDGSGLQ SPLESTLMGLEVQSFV
6925	2	1653	RGGAAGAAMEFTSVIEDKTIELMCSVPRSLWLGCANLVESMCAL SCLQSMPSVRCLQISNGTSSVIVSRKRPSEGNYQKEKDLCKYF DQWSESDQVEFVHLLSRMCHYQGHINSYLPMLQRDFITALP EQGLDHAENLSYLDARSLCAELVCKEQRVISEGMLWKLI ERMVRTDPLWGLSERRGWDQYLFKNRPTDGPNSFYRSLYPKI IQDIETIESNWLGRHNLQRIQCRSENSKGVYCLQYDDEKII SG LRDNSIKIWDKTSLECKVLGTGHTGSVLCQYDERVIVTGSSDS TVRVWDVNTGEVNLTLIHNEAVLHLRFNGLMVTCSKDRSIAV WDMASATDITLAVLVGHRAAVNVVDFDDKYIVSASGDRTIKW STSTCFVRTLNGHKRGIAQLQYRDRLVVGSSDNTIRLWDIEC GACLRVLEGHELVRCIRFDNKRIVSGAYDGKIKVWDLQAALDP RAPASTLCRLTI VHSGRVFRLOQDFEQIISSHDDTILIWDFL NVPPSAQNETRSPSRITYTISR
6926	1	733	SGRVAMDGLGLCFPEOGFPAGPPLPPHMGHGYRDCQSLGAPPL

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			DGYPLPTPDTSPLDGVDPPFAFFAAMPFGDCPAAGTYSYAQVSD YAGPPEPPFAGPMHPRLGPEPAGPSIPGLLAPPALHVVYGGMGS PGAGGGRGFOMQPOHQHQHQHPPGPGQPTPPPEALPCRDGT DPSQPAELLGEVDRTFEQYLHFVCKPEMGLPYQGHDSGVNLPD SHGAISSVVSASSAVVYCNYPDV
6927	2	1484	LTLCGDICMLAONANNRAHLEEFHYQTKEDQEILSLHRESS CQGFATWDLSTDLESQSVSCCYEAANEILQFRDLKSNPEH YVQVLKRCMNI RNEIGVFYMNQAAALQSERLVSKSVSAEQQLW KKSFSCEFEGIHNFESIEDATNAALLCNTGRMLRICAQAHCGA GDELKREFSPEEGLYINKAIDYLLKALRSLGTRDIHFAVWDSVN WELSTTYFTMATLQDDYAPLSRKAQEQIEKEVSEAMMKSLLKYCD VDSVSARQPLCQYRAATIHRLASMYHSLRNQVGDHLRKHQR VLADLHYSKAAKLFQLLKADAPCELLRVQLERVAFAEFQMTSONS NVGKLKTLSGALDIMVRTEHAFQLIKELIEFGOPKSGDAAAA ADASPSLNKEEVMLLSIFESRLSFLLOSILKLSSTKKKTSNN IEDDTILKINKHIYSQLLRATANKTATLLERINVIVHLLQLAA GSAASSNAVQ
6928	1086	777	EATDLINNLQVKMRKRYSDKTLSPWLQDYQTNLQDLRELECK IGERYITHEDDLWEKYAGEQGLQYPTHLINPSASHSDTPETE ETEMKALGERVSIL
6929	1749	607	RDQGYRDEERSAPAREPGDVSARTSGGGGGRSATTAMPFPVNG NLQHDPODLRHNGNVVAGRPSCSRGPRAIQQPQAGGRRSG RGPAGGLCLQPPDGGTCVPEEPVPPMDWEALEKHLAGLQPRE QEVNRQGOARTNSTSAQKNERESIRQKLALGSFFDDGPGIYTSC SKSGKPSLSRLSGMNLQICFVNDSGSDKSDADDSKTETSLD TPLSPMSKQSSYSRDRTEESLDDMDLFRQKKLQAEAKM ALAMAKPMAMQVEVEKQNRKSPVADLLPHMHISECLMKRSL KPTDLRDMTIGQLQVIVNDLHSQIESLNEELVQLLLJRDDELHTE QDAMLVDIEDLTHAESQQKHMAEKMPAK
6930	131	545	FKETANVFVSLFQMRNNFRHYFIEPSQLKLFYDVITWITQVAI SYTVVPFVLLSIKPSLTFYSSWYYCLHILGILVLLLPVKKTOR RKNTHENIQLSQSKKFDEGENSLGQNSFSTNNVNCNQNQEIASR HSSLKQ
6931	2	659	FVERLPNRFACLLVASGAAEGVSAQSFLHCFMTASTAFNLQVAT PGGKAMEFVDVTESNARWQDFRLKAYASPAKLESIDGARYHAL LIPSCPGALTDLASSGSLARILQHFHSESKPICAVGHGVAALCC ATNEDRSWVFDYSYSLTGPSVCELVRAFGFARLPLVVEDFVKDSG ACFSASEPDAVHVLDRLHVTGQNASSTVPAVQNLFLCGSRK
6932	2	1131	FVDSFGQGEQAEIEGGIQMNSRMRAHSPAEGASVESESFGPKK SDMCEGCRSLAAGHPGYISHDKETSIIKYVSHOHPSHPOLFSIVR QACVRSLSCEVCPGREGPIFFGDEQHGPFVFSHTFFIKDSLARGF QRWYSIITIMMDRIYLINSWPFLGKVRGIIDELQKALKVFEA EQFGCPQRAQRMNTAFTPFLHORNGNAARSLTSLTSDDNLWACL HTSFAWLLKACGSRLTEKLEGAPTEDTLVQMEKLADLEEESES WDNSEAEIEEKAPVLPSTEGRELTOGPAESSSLSGCGSWQPRK LPVFKSLRHMQRVGGRGTAHHELRRRANHGLCLPTRLASGSPSTL KTLQEVTDLSLGGWLMAGVGII
6933	1431	890	SLNLHCTLPFPFHQYPAGYPSDKGKKPKGOSKKQPSGTTKRPI SDDDCPSASKVYKASDAEAEAFQLTPOQOHLIREDQONQKLW DEVLSHLVEGFNFKKLEQSFMCVCCQELVYQPVITECFHNVCK DCLORSFKAOVFSCPACRHDLGQNYIMIPNEILQTLDDLFFPGY SKGR
6934	3030	2586	DRDHSQCGGIRVALARVSSVKLISKAKIRTVKMTFIIVLAFIV CWTPTFFVQMWVWDANAPKEASAFIIVMLLASLNSCCNPWIYM LFTGHLFHELVRFLCCSASYLKGRRLGETSASKKSNESSFVLS HRSSQSRSCSQPSTA

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6535	886	543	NSALYVAGGNDGTSCLNSVERYSPKAGAWESVAPMNIRSTHDL VAMDGWLYAVGGNDGSSSLNSIEKYNPRTNKWVAASCMFTRRSS VGVAVLELLNFPPSPSTLSVSSSTSL
6536	1347	567	ESHRQFLSRALLEFFGKSHPPPHRLFRKSLNVGLHYSHIPFLT TCLHFLRKRRLQKEVGLSVETSKPQVPVGGLSRKVPQEPWATV MEKRLQEAQLYKEGNQRYREGKYRDAVSRVYHALLQLRLGLDPS LPSPLPNLGPQGPALTPEQENILHTTQTDCCYNLLAACLLQMEPV NYERVREYSQVLEROPDNAKALYRAGVAFPHLQDYDQARHYLL AANVRQPKDANVRRYLQLOQSELSSYERKEKQLYLGMFG
6537	1	727	AVEFRCCPGRDPACFARGWRLDRVYGTFCFCDQACRFTGDCCFDY DRACPARPCFVGESWPSWGCADQCKPTTRVRRRSVQOEPONGGA PCPPLERAGCLEYSTPQGQDCGHTYVPFITTSFNFKERTROA TSPHWSHTHTDAGYCMFKTESLTPHCALENRPLTRWMOYLREG YTVCVDCQPAMNSVSLRCSGDLSDSGNQTLHWQAIGNPRCOG TWKKVRRVDQCSCPAVHSFIFI
6538	3	719	NSRKLELAERVDTDFMOLKRRQSSEKENDSGTLDTVGAVVVDH EGNVAAAVSSGGLALKHPGRVGGQAALYGCQCAWENTGAJNPYST AVSTSGCGEHLVRTILARECSHALQAEDAHOALLETMONKFIS PFLASEDGVGGVIVLRSCRCSAEPDSSONKOTLLVEFLWSHTT ESMCVGYMSAQDGKAKTHISRLPPGAVAGQSVATIEGGVCRLEG SELTQAECEASQRFRT
6539	3	810	KVTAFFRRPQRYSSGHGSDNSSLVSGELPPAMGRRTALFHSGSS GYESLRRDSEATGSASSAPDSMESGASPGARTSLKSPKKRA TGLORRRLIPAPLPDITLGRKPSLPQGWVLDLPPPLAGSLKEPF EIKVYEIDDVERLQRPPTPREAPTQGLACVSTRRLRAEKROOR LREVQAKHKLCELAETQGRMLLEPGRWLEQFEVDPELEPESA EYLAALERATAALEOCVNLCAHVMMVTCTFDSVAAASAI PGQ EVDV
6540	1188	496	GKMAAOLRHRRCATPPRGDFCGGTERAIDQASFTTSMEDWTO VVKGSSPLGPAGLGAEPAGPQLPSWLOPERCAVFOCAQCHAV LADSVHLAWDLRSLSGAVVFSRVTNVLEAPFLVGI EGS LKGS TYNLLFCGSCGIPVGFHLYSTHAALALRGHFCSSDKMVCYLL KTKAIVNASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILS EVTPOQSKPEN
6541	1	713	SESRADSDFHGPHTCGHVLNVIIGSNVLALAEARQAEALGYQA VVLSAAMQGDVKSMAQFYGLLAHVARTRLTPSMAGASVEEDAOL HELAELQIPDLQLEEALETMAWGRGPVCLLAGGEPTVQLOGSG EGGRNOELALRVGAELRRWPLGPI DVLFSGGTDGQDGPTEAAG AWVTPELASQAAAEGLDIATFLAHNDSHTFFCCLQCGAJLLHTG MTGTNVMDTHLLFLRPF
6542	1	246	GDYVERYDPKTDWTMGAPLSMPTNAVGGCLLDRLYADGGYDG CTYLNMTESYDPQTNEWTQMASLNI GRAGACVVVIKQF
6543	1	739	PMATGDGAKTLAIHVKALTADSIRITWKATLPASSFRLSWRLRG HSPAGGSITETLVQGBKTEYLLTALEPKPTYIICMVTMETTNAY VADETPVCAKAETADSYGPTTTLNQEQNAGPMASPLAGIIGGA VALVFLFLVLGAI CWYVHQAGELLTRERAYNRGSRKKDDYMESG TKKDNSILEIRGPGLOMLPINPYRAKEEYVHTIFPSKSGSSLCK ATHTIGYGTTRGYRGGIPDIDYSYT
6544	960	156	VANILLNGVKYESELTGSSERAEQPLSVGRLCSTICNMPKALRT LCVNHFLGWSFEGMLLFYTDPMGEVVFQGDPKAPHTSEAYQKY NSGVTMGCGMCIYAFSAFYSAILEKLEEFSLVRTLFIAYLA FGLGTGLATLSRNLYVVLSLCITYGILFSTLCTLPYSLLCDYYQ SKKFASSADGTRRGMGVDISLLSCQYFLAQILVSLVLGPLTSA VGEANGVMYFSSLVSLGCLYSSLFVIYEIPPSDAADEHRPLL LNV

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6945	2067	179	EGEDRGLPRTMGAALGTGTRLAPWPGRACGALPRWTPTAPAQGC HSKPGPARPVPLKKRGYDVRNPHLNKGMATLEERLQLGTHGL IPPCFLSQDVQLLRIMRYERQCSLDKYIILMTLODRNEKLFY RVLTSDEVKFMPIVYPTPTVGLACQHYGLTFRRPRGLFITIHDKG HLATMLNSWPEDNIKAVVVTGGERILGLDGLCYGMCIPVGKLA LYTACCGVNPQOCLPVLLDVGTTNNEELLRDPLYIGLKHQRVHGK AYDDLDEFMQAVTDKFCINCLIQFEDFANANAFRLNKKYRNKY CMFNDDIQGTASVAVAGILAALRITKNKLSNHVFGFGAGEAAM G\IAHLLVMALE\KEGVPA\EAIRKIW\MVDF\KGLIVQGRDH LNHEKEMFAQD\HPEVNSLEEVVRLVKPTAIIGVAAIAEA\FTE QILRDMASFHERP\IIFALSNTPSKAECTA\EKCYRVTEGPRGF FAS\GSPF*GVLIWEMGKTFIPGGRGNNA*RVPRGWQLGVHSPG GDPGHIP\DEIFLPDSRAKLPOEVSEOHLSOGRLYP\PLST\IR NVFLRIAIKVFD*GYKHNLV\SYYPEPKD\KEAFCKIPGSYTPD YDSFYT/VDSYIWAQKAMNVQTV
6946	133	2551	SCEYSGITVAPGDPCEGVAHLLAPSMASDTFESLMALCTDFCLR NLDTGLGYLLDKETLRRLHPDIFLPSEI\CDRLVNEYVELVNAAC NF\EPHE\SFNPLFRDPRKQPASRRHL\RED\LVQD\QD\LE AIRKQDL\VEL\YLTN\CEKLSAKSLQTLRSFHTLGVP*AFFG C\TNILLRKENPGGL/CEDEYLFNPTCOVLVKDFTFEGFSRLR F\KLGRMIDWVPVES\LLRPLNSLAALDLSGIQTSDA*\FLTQ WKDSL\VSLVL\YNMDSDDIIR\VIQHLKLRHLDISRDLSS YYKFKLTREVLSLFVQKLGMLMSLDISG\HMILENCISIKIGR EAGQTSI\EPSK\SSIIPFRGFEGGPLQF\LGVF*GIFCGRLT IIPAYKVGDKNEEQVLNAIEAYTEHRPEITSRAINLLFDIARIE RCNQLRALKLIVITALKCHKYDRNIQVTGSAALFYLTNSEYRSE QSVKLRRQVIQVVLNGMESYQEVTVQRNCCLTLCNFSIPEELEF QYRRVNELLISILNPTRODESIQRIAVHLCNALVCVDNDHKEA VGKMGFVVMTLKLTKQLLDKTKDQVMEFSW\SALWNI\TDETPD NCEMFLNFMGMKFLDCLNEFPEKQELHRNMLGOLLGNVAEVKEL RQMLMTSOFISVFSNLLSKADGIEVSYNACVLSHIMFDGPEA WGVCEPREEVEERMMAAIQSWDINSRRNINYSFEPILRLLPO GISPVSCHWATWALYNLVSVYPDKYCPLLIKEGGMPLLRDIKIM ATARQETKEMARKVIEHCNFKENMDTSE
6947	2	1682	TSVSTIPRGLASARQPSRSWRCCPVWRRSPGRARGRLKMLNVP SQSFAPRSQORVASGGGRSKVPLKQGRSLMDWIRLTKSGKDLTG LKGLRIEVTEELKKHKKDDDCWICIRGFVYNVSPYMEYHPGGE DELMRAAGSDGTELFQVHRVWVYESMLKECLVGRMAIKPAVLK DYREEKKVLNGMLPKSQVTDTLAKEGPSYFSYDNFOTDSLVTI /EHIY*TEGYQFRLNNS*SE*FLYSRNNY*GLLISYTYW/R*A MRFRKIFLCGL/CESVGKIEIVLQKKENTSDFLGHPLKNHNSL IPRKDTGLYYRKQLISKEDVTHDTRLFCMLPPSTHLQVPIGQ HVYLKLPITGTEIVKPYTPVSGSLLSEFKEPVLNNKYIYFLIK IYPTGLFTEPDLRLQIGDFVSVSSPEGNFKISKFQELEDFLLA AGTGFTPMVKILNYALTDI\PSLRKVKLMMFNKTEDDIWRSQLE KLAPKDKRLDVEFVLSAFISEWNGKQGHISPLLSEFLKRNLDK SKVLVCI CGPVFFTEQGVRLHDLNFSKNEIHSFTA
6948	104	58	PDGAHSFPDEYFTCSSLCLSCGVGCKSMNHGKEGVPHAKSR CRYSHQYDNRVYTCKACYERGEVSVVPKTSASTDSPWGLAXY AWSGYVIECPNCGVYRSRQYWFGNQDPVDTVVRTEIVHVWPGT DGFLKDNWNAQRLLDGMNFMAQSVSELSLGPTKAVTSWLTDOI APAYWRPNSQILSCNKCATSFKDNDTKHHCACGEGFCDCSSK TRPVPERGWGPAPVRVCDNCYEAR/TRPVSCYRGTSGR*RRRT QETVE
6949	152	4656	GLRLCLSRPLTRPGDDSVGGSAMASGAGGVGGGGGKIRTRCH QGPIKPYQOGRQHQGILSRVTESVKNIIVPGWLQRYFNKNEVC

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			<p>SCSTDTSEVPRWPENKEDHLVYADEESSNITDGRITPEPAVSNT EEPSTTSTAST\YPDVLTRVSLYRSHLNFMSLESPALHCQPSTS SAFPIGSSGFLVKEIKDSTSQHDDDNISTTSGFSSRASDKDIT VSKNTSLPPLWSPEAERSHLSLQHTATSSKKPAFNLSAFGTLSP SLGNSSILKTSQLGDSPPFYPGKTTYGGAPAVRQSKLRNTPYQA PVRQMKAKQLSAQSYGVTSSTARFILQSLKMSPLADAKRIP SIVSSPLNSPLDRSGIDITDFQAKKEKVDSSQYPPVQRLMTPKPV SIATNRSVYFKPSLTPSGEFRKTNORIDKKCSTGYEKNMTPGQN REORESGFSYPNFSPLPAANGLSSGVGGGGKMRERHAFVASKP LEEEEMEGFVLPKISLFIITSSSLPTFNFSSEIITSSPSPINSS OALTNKVQMTSPSSSTGSPMFKFSSPIVKSTEANVLPPSSIGFTF SVPVAKTAEISGSSSTLEPIISSAHVTTVNSTNCKKTPPEDC EGPFRPAEILKEGSSVLDILKSPGFASPKIDSVAQAQTATSPVVY TRPAISFSSSGIGFGLKAGSSWQCDTCLLQNKVTDNKCICAC QAKLSRDTAKQTGIETPNKSGKTTLSASGTGFGDKFKPVI GT WDCDTCLVQNKPEAIKCVACETPKPGTCVGRALTLTVVESAET MTASSSSCTVTTGTGLGFGDKFKRPIGSWECSVCCVNNNAEDNKC VSCMSEKPGSSVPTSSSSTVPVSLPSGSSLGLEKFKKPEGIWD ELCLVQNKADSTKCLACESAKPGTKSGFGFDTSSSSSSNSAASS SFKFGVSSSSSGPSQTLTSTGNFKFGDQGGFKIGVSSDSGYINP MSEGF*FSKHIVGFKFGVSSSESKPEEVKKDSKNDNFKFGLSFG SNPVFLTFFQFGVSNLQOEKKKEELLKSSCAGFRFGTGVINSTR VPANTIVTSENKSSFNLTETKSVSVAPLKQCTSEAKKEEMPA TKGGSFGNVEPASLPSASVFLGRTTEKQCEPVTSTSLVFGEG KLTMKEPKC\QPVFSFGFQRTKDESSSKSTFSFSMTKPEKE SEOPAKATFAFGAQTNTTADQGAAPDLSSYLNSSSSSSSTPAT AGGG\IFGSSTSSSNPPVATFVFGCSNPGSS\AFGNTAESST SQSLFQSODSKLATTSTGTAVTPFVFGPGASSNNTTTSQFGFG ATTSSSAGSSFVFGTGPSAPSASPAFGANCTPTFGQSQASQP NPPGFGSISSTALFPTGSPAPPTFGTVSSSSQPPVFGQQPSQ SAPGSGTTPNSSSAFQFGSSTTNFNFTNNSPSGVFTFGANSSTP AASAQPSGSGGPPFNQSPAFTVGSNGKVPSSSGTSFSGRKIK TAVRRRK</p>
6950	2585	411	<p>PRFGSRSLCRAGERGAVRAGGLSRRTAE*IMDELHYQDTS DVPEQRDSKCKVKWTHEEDEQLRALVRQFGQDQWFLASHFPNR TDQCCQYRWLRVLNPDLVKGPWTKEEDQKVI ELVKYGTQWTL IAKHLKGRLGKQCRERWHNLNPEVKKSCWTEEDRIICEAHKV LGNRWAEIAKMLPGRTDNAVKNNHNSITIKRKVDTGGLSESKDC KPPVYLLLELEDKDLQSAOPTGEGSLLTNWPSVPPTIKEEN SEEELAAATTSKEQEPITDLDVARTPEPLEEFFPKREDQEGSP ETSLPYKVVVEAANLLIPAVGSSISEALDLIESDPDAWCDLSKF DLPEEPSAEDSINNSLVQLOASHQOQVLP RPQPSA\LVPSVTEY RLDGTISDLRSSRGELIFISPSTEVGGSGIGTPPSVLKRQRK RRVALSPVTENSTLSFLDSCNSLTFTKSTFVKTLFPSPSQFLNF WNKQDTLELESPLTSTPVCSQKVVTTPLRHDKTPLHQKHAFA VTPDQKYSMDNTPHTPTPFKNALEKYGLKPLPQTPHLEEDLKE VLRSEAGIELIIEDDIRPEKQKRKPGLRRSPIKKVRKSLALDIV DEDMKLMSTLPKSLSLPTTAPSNSSSLTSGIKEDNSLLNQGF LQAKPEKAAVAQKPRSHFTTPAPMSSAWKTACGGTRDQLFMQE KARQLLGRLLKPSHTSRTLILS</p>
6951	1940	239	<p>AGPDDTMKRSLOALYCOLLSFLLILALTEALAFAIQEPSPRESL QVLPSGTPFGTMVTAPHSSSTRHTSVVMLTPNPDGPPSOAAAPMA TPTPRAEGHPPT\TPSPPSLRQ*PPPILKAP/SSTGFAPAAMAT TSSKPEGRPRGQAAPTILLTKPPGATSRPTTAPPTTTTRPPRP PGSSRKAGNSSRPVPPAPGGHSRSKEGQRGNPSSTPLGQKRP LGKIFIQYKGNFTGSVEPEPSTLTPTPLWCYSSSPQPQTVAAT</p>

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			TVPSNTSWAPTTSLSGPAKDKPLRRRAOQGGSTFTSQGGTPDA TAASGAPVSP/PSCPSAFSAPPPR*PTGWQP*LLAYCYP/CT SRPLSTSSGVFTAATGPTPAADTSVSAPSQGIPOGASTTPQAP THPSRVSESTISGAKEETVA\PS*PTGCPVLSQWYPOQOAS STAWSPPGSGSLGQQTSPMWPRTNRSTEPSA*ARWISFG*S WPSACPSPP/LCPADGVLHEEEEDRQPGEQPEAYGNNTHTHPT TFQAC\RGAAPEIPVPLKPLRTQLSEPRSPANGDYRDTGMV C
6952	658	304	PESEGESGEMTDRTYTHSQLEHLQSKYIGT\ATPTPPSGSG\CE PTPRLVLLHGLRPSQLLRHCGE*EQSASPLQLDGKDASALWT ASRQARGELRLCLTTAVRGTSPSVSPVCOSS
6953	1512	349	NWGKTRALASGKHVPFGKQTNPNKS/VHCDS*G**RRETTQDES FSPHFRGKMGGVV\KLEKELENTEQPVGGENE*EHEVTGNLNSD PLELCCQPLCQLDCGSRQLIAHVYQHTAAVVSAXSYM\CPVC GRALSSPGSLGRHLLIHSEDCRSNCAVCGARFTSHATFNSKLF EVLNMEISLPTVHNEGPFSSAEGKDIASFVFPYAGILLVCNNCAA YRKLLEAQTPSVRKVALRRQNEPLEVRLQRLERERTAKKSRRDN ETPEEREVRRMRDREAKRLQRMQETDEQARRLRQDREAMRLKR AIEPTPKRQARLIREREAKRLKRLKMDMLRAQFGQDPSAMA ALAEAMNFFQLPVSGVELDSQLLGKMAFEQNSSSLH
6954	819	1	PPPPFTIPSPHREAGT*AG*KRSQDSECSFFVEQ*A*TRAAQN *PQR*RWTEGNSPOASAVATPGOGASPAAPRCTP*PSRRHRLP PGARPPAG*AAPPTKPLWLAGPASAPQGAAPLSPAPPLIRTR *CAGAAARGRRRRDRSPRPTPGGCSWSEPRTPPAVSASAOPTS DAG*AGGR*GQRQRPSTGR*PPGVGAGRSRRREGTIPGNPHPR AS*RAWQR*PGP/REWGL*EPQGEEMSGPGGPGGAFPNQVGSS VMQAMSTGI
6955	1968	782	PPGRRQVRAQVAGAPVGHGWRARQVKTGRRRRARRTMPFLGQD WRSPGWSWIKTEDGKRCESCSQKLERENNHCNISHSIIILNSED GEIFNNEEHEYASKRKKKDHFRNDNTQSFYREKWIYVHKESTK ERHGYCTLGEAFNRDLDFSSAIQDIRRFNYVVKLLQLIAKSQSTS LSGVAQKNYFNILDKIVQKVLDDHNPRLIKDLLQDLSSTLCIL /N*RSREVCISGKHQYLDLPIRNYSLATTATGSSDD*ASE\NG LTLSDLPLHMLNNILYRPSDGDWIIITLGQVPTLYMLSEDRQLW KKLCQYHFAEKQFCRHLILSEKGHIEWKLMYFALQKHYPAGEQY GDTLHFCRHCSILFWKDSGHPCTAADPDSCTFPVSPQHFIIDLFK F
6956	8605	3839	QTSTSI FASPTSPVVLGESVLDNSFDLNNGSDAEQEEEMETQSS DFPPSLTQAPDQSSSTIQLHPATSPAVSPPTSPAVSLVUSPAAS PEISPEVCPAASTVVSPAVFSVVS PASSAVLPVLSLEVPLTASV TSPKASPVTS PAAAFPTASPANKDVSSFLETTADVEEITGEGLT ASGSGDVMRRIATPEEVRLPLQHGWRREVRIKKGSHRWQGETW YYGPCGKRMKQFPEVIKYSRNVVHVSRRHFSSPRMPVGDFF EERDTPGELQWVQLSAEEIPSRQAI TGKGRPRNTEKARTKEV PKVKRGRGRPPKVKI TELNKT DNRPLKKLEAQETLNEEDKAKI AKSKKKMRQKVORGEQOTTIQQOARNKRKQETKSLKQKEAKKKS KAEKEKGKTKQEXLKEKVKREKKEKVKMKEEVTAKPACKAD KTLATQRRLEERQRMILEEMKKPTEDMCLTDHQPLPDFSRVP GLTLP SGAFSDCLTIVEFLHSFGKVLGDFPAKDVPSLGVLEGL LCQGDSLGEVQDLLVRLKALHDPGFPSYCQSLKILGEKVSEI PLTRDNVSEILRCFLMAYGVEPALCDRLRTOPFOAQPPQKAAV LAFVLVHNLNGSTLIINEIDKTLESMSYRKNKWIVEGRRLRLKT VLAKRTGRSEVEMEGPEECIGRRSSRIMEVTSMEEEEEEEESI AAVPGRRGRRDGEVDATASSIPELERQIEKLSKRLFFRKKLLH SSQMLRAVSLGQDRYRRRYWVLPYLAGIFVEGTEGNLVPEEVTK KETDSLKVAHAASLNPALFSMKMELAGSNNTASSPARARGRPK

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			LQPTPGLNQSSHLSSLSSRDYRMLSSFNWFWDKFWLPPNV WTELEDRDGRVYPHPODLLAALPLALVLLAMRLAFERFIGLPLS RWLGVRDQTRRQVKPNATLEKHFLTEGHRPKPEQLSLLAAQCG TLQQTQRWFRRRRNQDRPQLTKKFCEASWRFLFYLSFVGGLSV LYHESWLWAPVMCWDYRPNQLTSLCPAADSEA\SLYWWYLLLEL FYLSLLIRLPFDVKRKGSSIKPRPHYDPPSTA\DFKEQVIH HFVAVILMTFSYANLLRIGSLVLLHDSDDLLEACKMVNYMC YQQVCDALFLIFSFVFFYTRLVLFPTQILYTTYYESISNRGPF GYFFNGLMLLQLLHVFWSCILRMLYSFMKKGOMEKDIRSDV EESDSSEAAAAQEPLQLKNGTAGGPRPAPTGPSPRVAGRLTN RHHTAT
6960	387	2068	AKWAREKEMQEF\TRSF\RGPRDLSTLTHSIVRRRYLAHSGRS HLEPEEKQALKRLVEEPLKMQVDEAASREDKDLTKKGRKRPPT PCSDPERKRRFRNSESESGSEASSPDYFGPPAKNCVASRSHTE KEENPRRA\SKAVEESSDEERQDLPQORGEESSEEEKGKYGK TRKKPVVKQAPGKASVSRKQAREESEESEAEPVORTAKKVEGN KGTSLKESEGESEEEILAQKKEQREEEVEEEKEEDEEKGDWK PRTRSNGRKRSAREERSCKQKSQAKRLLDSDSEEEQKEAASSG DSDGRDREPPVQRKSEDRTQLKGGKRLSGSSEDEFDSGKGEP KGRKMARLGSTSGEESDLEREVSDEAGGGPOGERKNRSSKKS SRKGRTRSSSSSDGSPKAGGKAGSGRGEHPFVMRKRYIK ACGAHRNYKKLLGSCCHKERLSILRAELEALGMKGTPSLGKCR ALKEQREAAEAVASLDVANIISGSGRPRRTAWNPLGEAAPPG LYRRTLDSEERPRFAPPDWSHMRGIISDGESEN
6961	340	1646	RPWSSPTMKPNFSLRLRIFNLNCWGIPLYSKHRADRMRLGDFL NQESFDLALLEEVWSEQDFQYLRQKLSPTYPAHHFRSGIIGSG LCVFSKHPIQELTQHIYTLNGYPYMIHHGDWFSGKAVGLLVHL SGMVLNAYVTHLHAEYNRQKDIYLAHRVAQAWELAQFIHHTSKK ADVLLCGDLNMHPEDLGCCLLKEWTGLHDAYLETRDFKGSEEG NTMVPKNKYVSQQLKPPFGVRIYDVLYKAVSGFYISCKSFET TTGFDPHRGTPLSDEALMATLFVRHSPQONPSSTHGP\AERS PL/MCVCLKEALDGSGLGMA\QARWWA\TFA\SYVIGLGL\LL LALLCVLAAGGGAGEAAILLWTPSVGLVLWAGAFYLFHVQEVNG LYRAQAELOHVLGRAREAQDLGPEPOLYALL\LGQEGDRTKEQ
6962	340	1646	RPWSSPTMKPNFSLRLRIFNLNCWGIPLYSKHRADRMRLGDFL NQESFDLALLEEVWSEQDFQYLRQKLSPTYPAHHFRSGIIGSG LCVFSKHPIQELTQHIYTLNGYPYMIHHGDWFSGKAVGLLVHL SGMVLNAYVTHLHAEYNRQKDIYLAHRVAQAWELAQFIHHTSKK ADVLLCGDLNMHPEDLGCCLLKEWTGLHDAYLETRDFKGSEEG NTMVPKNKYVSQQLKPPFGVRIYDVLYKAVSGFYISCKSFET TTGFDPHRGTPLSDEALMATLFVRHSPQONPSSTHGP\AERS PL/MCVCLKEALDGSGLGMA\QARWWA\TFA\SYVIGLGL\LL LALLCVLAAGGGAGEAAILLWTPSVGLVLWAGAFYLFHVQEVNG LYRAQAELOHVLGRAREAQDLGPEPOLYALL\LGQEGDRTKEQ
6963	374	2618	RVTPLILKLLKPKTAENQKASEENEITQPGSSAXFGLPCLNF EAVLSPDPALIHSTHSLTNSHAHTGSSDCDISCKGMTERIHSIN LHNFNSVLETLNEQRNRGHFCDVTVRIHGSMLRAQRCVLAAGS PFQDKLLLGYSDEIIPSVSVQSVQKLIDFMYSGVLVRSQSEA LQILTAASILQIKTVIDECTRIVSQNVGVDFPGIODSGQDTPRG TPESGTSQSSDTESGYLQSHQHSVDRIYSALYACSMQNGSGE RSFYSGAVVSHHETALGLPRDHMEDPSWITRIHRSQOMERYL STTPETHCRKQPRPVRIQTLVGNIIHQEMEDDYDYQGQQRVQ ILERNESEECTEDTDQAGTESEPKGESFDGVSSTIGTEPDSV EQQFGPAARDSQAEPQPEQAAEAPAGGGPOTNOLETGASSPE RSNEVEMDSVTIVSNSDKSVLQQPSVNTSIGQPLPSTQLYLR QTETLTSLNRMPLTLTENTQVIGTAGNTYLPALFTTQAPGSGPK

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			PFLFSLPQFLAGQQTQFVTVSQPGLSTFTAQLFAPQFLASSAGH STASGOGEKKPYECTLCNKTF TAKQNYVKHMFVHTGEKPHQCSI CWRSFSLKDYLIK\HVVTHTGVRAYQCSICNKRFTQKSSLNVHM RLHRGEKSYECYICKKKFSKHTLLERHVALHSASNGTPPAGTTP GARAGPPGVVACTEGTTYVCSVCPAKFDQIEQFNDHMRMHVSDG
6964	1	178	SGRFFFFFSNTDVYFIKKVTNRWTAGSSYKMRMKSIGKILL QIFIG\NCSMFVLVI
6965	757	208	NVFI EPRIGCFMKTSAHPGQKHPDFSMGLLFPLLAALEVCSCGS SGLGYNLPONH\GLLGRNTLVLLGQMRRISPFLCLKDRSDFRP PQEVEVSQLQKA\QAMSFYLDVLQOVFNFSHKALL\CCMEHDL PGPTPHFTSSAAGTPGDLLGAGDGRRRSWGQWVIEGSTLALRRY FQESISTLE
6966	820	1867	ITITLGVRCMPGCPGCGMAGPRLLFLTALALELLGRAGGSQP ALRSRGTTATACRLDNKESESWGALLSGERLDTWICSLGSLMVG LSGVFP LLVI PLEMGTM LRSEAGAWRLKQLLSFAIGLLGNVFL HLLPEAWAYTCSASPGGEGQSLQQQQQLGLWV IAGILTFLALEK /HVPGOQGGGDQPGPQQRPHCCCRRAQWRPLSGPAGCRARPRCR GP\DIKVSGYLLNLLANTIDNFTHGLAVASFLVSKKIGLLTMA ILLHIEI PHEVGDFAILLRAGFDRWSAAKLQLSTALGGLLAGGFA ICTOSP KGEVEETAAWVLPFTSGGFLYIALVNVLPDLLEEDPW
6967	162	633	GFLPFKYWILDLSASSRMETDCNPMELSSMSGFEEGSELNGFEG TDMKDMKLEAEAVVNDVLFVNNMFVSKSLRCADDVAYINVETK ERNRYCLELTEAGLKVVGYAFDQVDDHLQTPYHETVYSLDLTL\ SPAYREAFGKR\LLQRLALKRDGQS
6968	1	2265	RGGGGGRGGPGARERERPGEPERTMEAAAGRGCFQPHPGLOKT LEQFHLSSMSSLGGPAAFSARWAQEAYKKESAKEAGAAVPAVP PAATEPPPVHLPAIQPPPVLPGPFMPSPDRSTERCETVLEGE TISCFFVGGEKRLCLPQILNSVLRDFSLOQINAVCDELHIYCSR CTADQLEILKVMGILPFSAPSCGLITKTDAERLCNALLYGGAYP PPCKELAAASLALGLELSERSVRVYHE\CFGKCKGL\LVPELYS SPSAACIQCLD\CRLMYPHKKFVVHSHKALENRTCHWGF\DSA\ NWRAYIILSQDYTGKEEQARLGR\CLDDVKEKFDYGNKYKRRVP RVSEPPASIRPKTDDTSSQSPAPSEKDKPSSWLRTLAGSSNKS LGCVHPRQLSAPFRPSPAVSASEKELSPHLPALIRDSFYSYKS FETAVAPNVALAPPAQKVVSSPPCAAASVRAPEPLATCTQPRK RKLTVDTGAPETLAFVAAPEEDKDSEAEVEVESREFTSSLSS LSSPSFTSSSSAKDLGSPGARALPSAVPDAAA PADAPSGLEAEL EHLRQALEGGDLTKAKEKFLHEVVKMRVQKEKLSAALQAKRS LHQELEFLRVAKKEKLREATEAKRNLKEIERLRAENEEKMKEA NESRLRLKRELEQARQARVCDKGCEAGRLRAKYSAQIEDLVQKL QHAEADREQLRADLLRERAREHLEK\VVK\ELQEQLWPRARPE AAGSEG\AAELEP
6969	1855	118	AGTMHGRLLKVKTSSEEQAEAKRLEREQKLKLYQSATQAVFQKRQA GELDESVLELTSQILGANPDFATLWNCRRREVLOQLETOKSPEEL AALVKAELGFLESCLRVNPKSYGTWHHRCWLLGRLPEPNWTREL ELCARFLEVDERNFHCWDYRRFVATQAAVPPAEELAPTDLSLTR NFSNYSSWHYRSCLLPQLHPQPDSPGQGRLPEDVLLKELELVQN AFFTDPNQSAWFYHRWLLGRADPQDALRCLHVSDEACTVSVF SRPLLVGSRMEILLMVDDSP LIVEWRTPDGRNRP SHVWLC DLP AASLNDQLPQHTFRVIWTAGDVQKECVLLKGRQEGWCRDSTTDE QLFRCELSVEKSTVLQSELESCKELQELEPENKWCL\LTIIILM RALDPLLYEKETLQYFQTLK\AWDPKRATY\LDDLRSKFLENS VLKMEYAEVRVLHLAKDLTVLCHLEQLLLVTHLDLSHNRRLTL PPALAAALRCLEDPPPT\VLQASDNAIESLDGVTNLPRQLQELL CNNRLLQPAVLQPLASCPRLLVLLNQGNPLCQAVGILEQLAELL PSVSSVLT

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6970	2	1528	SFPPLSSPSAVGEGKVAVAAPCPGRSECARAKMAYIQLEPLNE GFLSRISGLLLCRWTCRHCCQKCYESSCCOSSEDEVEILGFFPA OTPPWLKASRSSDKDGSVHTASEVPLTPRTNSPDGRRSSSDTS KSTYSLTRRISSLESRRPSSPLIDIKPIEFGLSAKKEPIQPSV LRRTYNFDDYFRKFEPHLYSLDSNSDDVDSLDEEILSKYQLGM LHFTQYDILLHNHLTVRVIEARDLPPPIHSDGSRQDMAHNSPYV KICLLPDQKNSKQTGVKRRKTQKPVFEERYTFEIPFLEAQRRTLL LTVVDFDKFSRHCVIGKVSPLCEVDLVKGGHWWKALIPSSQNE VELGELLLSLNYLPSAGRLNVDVIRAKQLQTDVSGSDPFVKI QLVHGLKLVKTKTSFLRGITDPFYNESFSFKVPQEELENASLV FTVFGHNMKSSNDFIGRIVIG\QYSSGP\SEPNHWRRLNTHRT AVEQWHSLSRAECDRVSPASLEVT
6971	37	3702	ACFYVPGSRSFKLTIPRHGLVNMGRSGKLPSGVSAKLKRWKKGHS SDSNPAICRHRQAARSRRFSRPSGRSDLTVDVAVKLHNELOSGSL RLGKSEAPETPMEEAEVLTEKSSGTFLSGLSDCTNVTFSKVQ RFWESNSAAHKEICAVLAATEVIRSQGGKETETEFYFAALIRKA AQHGVCVSLKGSSEFMFEKAPAHHPAAISTAKFCIOETEKSGGSK EATTLHMLTLLKDLLPCFPEGLVKSCESETLLRVMTLSHVLVTA CAMQAFHSLFHARPGTLTSLAELNAQIITALYDYVPSENDLQPL LAWLKVMEKAHINLVRLQWDLGLGHLPRFFGTAVTCLLSPHSQV LTAATQSLKEILKECVAPHMADIGSVTSSASGPAQSVAKMFRAV EEGLTYKFAAWSSVLQLLCVFEACGROAHPVMRKCLQSLCDL RLSPHPHTAALDOAVGAATSMGPEVVLQAVPLEIDGSEETLD FFRSWLLPVIJDHVQETRLGFFTTYFLPLANTLKSKAMDLAQAG STVESKIYDTLOWQMWTLTPGFCTRTDVAISFKGLARTLGMAI SEKPDLRVTVCQALRTLITKGCQAEADRAEVSFAKNFLPILFN LYGQPVAAGETPAPRRVLETIRTILTITDQLVNSLLEKASEK VLDPASSDFTRLSVLDLVVALAPCADEAAISKLYSTIRPYLESK AHGVQKKAYRVLEEVCAASPOGPGALFVQSHLEDLKKTLDSLSRS TSSPAKRPRKLCLHIVRKLKSAEHKEFITALIPEVILCTKEVSV GAKNAFALLVEMGHAFIRFGSNQEEALQCYLVLIYPGLVGAUT MVSCSILALTHLFEFGKLMGTSTVEQLLENVCLLASRTRDVV KSAFGPIKVAVTVMDVAHLAKHVQLVMEAIKGLSDDMRHFRMK LRNLFT\KFIPK\FGILTGWKKAVGPKEYHRVLVNIKAEARAK RHRALSQAAVEEEEEEEEEEPAGQKGDSEIEILADSEDEEDNE EEERSRGKEQKRLARQSRRAWLKEGGDEPLNFDPKVAQRVLA TQFGPGRGRKKDHSFKVSADGRLIIEEADGNKMEEEGAKGED EEMADPMEDVIIRNKKHQKLKHQKEAEEEELEIPPOYQAGGSGI HRPVAKKAMPGAEYKAKKAGDVKKKGRPDYAYIPLNRSKLNLR RKKMKLQGFQKGLVKAQGRGSQVGHKNRRKDRRP
6972	2175	973	PGGAILLPLWRTRTPREATVPRGAAQGRARSAGEIPSSQSPS PAEAGGATRSPPPRPPRPAPPPGPSAPPELLRSDAGPGATVSAAA AAATERARRGATMGAQLSTLGHMVLPVWFLYSLMKLFQRSTP AITLESPIKYPLRLIDREIISHDTRRRFRFALPSPQHILGLPVG QHIYLSARIDGNLVVRPYTPISSDDDKGFVDLVIKVYFKDTHPK FPAGGKMSQYLESQIGDTIEFRGPSGLLVYQKGKFAIRPDKK SNPIIRTVKSVMGIAGGTGITPMLQVIRAIMKDPDDHTVCHLLF ANQTEKDILLRPELEELRNKHSARFKLWYTLDRAFEAWDYQGG\ FVNEEMIRDHLPPPE\EEPLVLMCGPPPMIQYACLPNL\DHVGH PTERCVFV
6973	1	1964	LQPRCAHRGLRAQKCGRPAPGVDAVMVLCVPVIGKLLHKRVVLASA SPRRQEIILSNAGLRFEVVPKFKELDKASFATPYGYAMETAKQ KALEVANRLYQKDLRAPDVVIGADTIVTVGGLILEKPVQKQDAY RMLSRFE/SGREHSVFTGVAIVHCSSKDHQLDTRVSEFYETKV KFSELSEELLWEYVHSGEPMKAGGYGIQALGGMVSVHGDFL NVVGFPLNHFCQKLVKLYPPRPEDLRRSVKHDSIPAADTFEDL

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			SDVEGGGSEPTORDAGSRDEKAEAGEAGQATAEAECRTRETLPPFPTRLLELIEGFMLSKGLLTACKLKVFDLLKDEAPQKAADIASKVDASACGMERLLDICAAMGLEKTEQGYSENTETANVYLASGEYSLHGFIMHNDLTWNLFYLEFAIREGTNOHHRALGKKAEDLFQDAYYQSPETRLRFMRMHGMTKLTACQVATAFNLSRFSSACDVGGCTGALARELAREYPRMQVTVFDLPDIIELAHFQPPGPQAVQIHFAAGDFFRDPLPSAELYVLCRIHHDWDDKVHKLSSRVAESC KPGAGLLLVTLLDEEKRAQORALMOSLNMVQTEGKERSLGEYCCLLELGFHQVQVHLGGVLDAILPPKWPPEAQAAACSL
6974	3082	2172	RSCAFAFASRPPLELFAPPGSHRSPPGRGVATSAQCALSVRKLLAARPGLGTKYQATMVYKTLFALCILTAGRVRQSLPTSAPLSVSLPTNIVPPTTIWTSSPONTADTASFSGNTHNNSVLPVTASAPTELLPKNISIESREEEITSPGSNWEGTNTDPSPSGFSSTSGGVH LTTTLEHSLGTPEAGVAATLSQSAEPPTLISPOAPASSPSVLSSTSPPEVFSASVITNHSSTVTSTQPTGAPTAPESPTTESSSDHTPTSHATAEPVPOEKTPTPTVSGKVMCELIDMETPPFPFG
6975	2	500	RPRPTVHCCKWALKLETAMETLINVFHANSKGEKDYKLSKKELKELLQTELSGFLDVKEML*ATEALKTFEEA*KSPIIQCSSRS SLPPADQPPPYL*LSAVPPFIHLPLPLPPQAQKDVAVDKVMK ELDENGDEVDFOEYVVLVAALTVACNNFFWENS
6976	1216	970	GCQL*VAYGTENSFVTFAPHPEDTVEOKAESVGRIMPHTEARIMNMEAGTLAKLNTPGELCIRGYCVM LGYWGEPQKTEZAVDQDKW YWTDGVATMNEQGFCCKIVGRSKDMIIRGGENIYPAELEDFHHTH PKVQEVQVVGKDDRMGEEICACIRLKDGEETTVEEIKAFCKQK ISHFKIPKYIVFVTNYPLTISGKIQKFKLREOMERHLNL*IKQQ ACPGRLA
6977	1296	568	SLFINTNLLSNQIRKTSFGMCSEPISDNTEDOKGKLTDPDFA*R ANKKSXHHVNGNRNRTVEPFEGTQMAVFGMCGFWGAERKFVWLKGVYSTQVGFAGGYTSNPTYKEVCSEKTGHAEVVRVYQPEHMSFE ELLKVFWEHNDPTQGMROGNDHGTQYRSAIYPTSAKOMEAALSS KENYQKVLSEHGFGPIITDIREGQTFYAEYHQOYLSKNPNNGY CGLGTGVSCVPVGIK
6978	3	242	SPPFRDSRRGCGCKGSSLRHTAVAMVKSKEAKQRLQQLFKGSQFAIRWGFIPLVIVLGFKRGADPGMPEPTVLSLLWG
6979	3917	1146	DEARVRGEAVAAAILSRCHWSGPPPPFPSPDRXGLRGTEPWEAGPGSGATPGARAMDVRLKVNELREELQRRGLDRGLKTELAE RLQAALEAEPPDERELDADDEPGRPGHINEEVETEGGSELEGT AQPPPPGLQPHAEPPGGYSGPDGHYAMDNI TRQNOFYDTQVIKQENESGYERRPLEMEQQQAYRPEMKTEMKQGAFTSFLPPEASQLKPD RQQFPQSRKRPYEENRGRGYFEHREDRRGRSPQPPAEDEDDDFD DTLVAIDTYNCDLHFKVARDRSSGYPLTIEGFAYLWSGARASYG VRRGRVCFEMKINEEISVKHLPSTEPDPHVVRIGWSLDS CSTQL GEEPSYGYGGTGKSTNSRFENYGDKFAENDVIGCFADFECEGN DVELSFTKNGKWMGIAFRIQKEALGGQALYPHVLVKNC AVEFNF GORAEPYCSVLPGFTFIQHLPLSERIRGTVGPKSKAECEILMMV GLPAAGKTTWAIKHAASNPSSKYNILGTNAIMDKMRVMGLRRQR NYAGRWDVLIQATQCLNRLIQIARKKRNYILDOTNVYGSQR RKMRPFEGFQRKAIVICPTDEDLKDRTIKRTDEEGKDPDHAVAL EMKANFTLPDVGDFLDEVLFIELOREEADKLVRQYNEEGRKAGP PPEKRFDRNGGGGFRGRGGGGGFORYENRGPFGCNRGGFQNRGG GSGGGGNYRGGFNRSGGGGYSONRWGNNNRDNNNSNNRGSYNRA PQQQPPPPQPPPPQPPPPQPPPPPSYSPARNPPGASTYNKNSNI PGSSANTSTFTVSSYSPPQSFGFFPSTFQPSYSOPPNQGGYSQ GYTAPPPPPPPPAYNYGSYGGYNPAPYTPPPPPPTAQTYPQPSY NQYQYQAQOWNQYQONQOWPYYGYNDYGSYSGNTQGGTSTQ
6980	1	420	GTRGRKTGRVAAPSTRRTGNMOKLQTRSPAMSLSDPLGLGYHPT

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			CWTLRWPLPLCSLHALHVHCLFSSRLGTPVSPRLAMPNCSCGAGGSCACAGSCCKCKCKCTSCCKSCCSCPLGCAKCAQGCICKGA SEKSCCA
6981	10	1054	PGRGFRRLSLRPAFAARGVFQGGGLQQAQARTRACAALPTPHPS APRLLEPQGVFLFPFPPPGWPNMILTAAQYDEIAQCLVSVPT RQSLRLKLQRFPSQSQATLLSIFSQEQKHIKRTHAKHHTSEAI ESYQRYLNGVVKNGAAPVLLDLANEVDYAPSLMARLILERFLO EHEETPPSKSIINSMRLRDPQIPDGVLANQVYQCIIVNDCCYGPL VDCIKHAIGHEHEVLLRDLLEKNLSFLDEQDLRAKGYDKTDFD ILQVPVAVEGHIHWHIESKASFGDECSHAYLHDQFWSYWNRF PGVLVIWYGFQELDCNRRERGILLKACFPNTNITLCHSIA
6982	153	1285	FPQDCSAPAAPGLAGSEPRRLRAYRRRQRARGLKRVAVLAPP PSLLQGLQGWAPVDGTLGPEDSRASEPMIQNSRPSLLOPQDV GDTVETLMLHPVIKAFLCGSISGTCSTLLFQPLDLKTRILQTLQ PSDHGSRRVGMALVLLKVVRTESLLGLWKGMSPSIVRCVPGVGI YFGTLYSLKQYFLRGHPPTALESVMLGVGSRVAGVCMSPITVI KTRYESGKYGYESIYAALRSIYHSEGHRLFSGLTATLLRDAPP SGIYLMFYNTKNIIVPHDQVDATLIPITNFSCGIFAGILASLVT QPADVIKTHMQLYPLKFWIGQAVTLIFKDYGLRGFPQGGIPRA LRRTLMAAMAWTVYEEMMAKMLKS
6983	82	773	EMSFLQDPSFFTMGWWSIGAGALGAAALALLANTDVFLSKPQR AALEYLEIDILKTLEKEPRTFKAKELWEKNGAVIMAVRRPGCFL CREEAADLSSLKSMQLDGLVPLYAVVKEHIRTVEVKDFQPYFKGE IFLDEKKKFYGPQRRKMMFMGFIRLGVWYNFFRAWNGGFSGNLE GEGFILGCVFVVGSGKQGILLEHREKEFGDKVNLVLEAAKMI KPQTLASEKK
6984	1845	1282	GGRSAYSLPAGSLPRVPATAAAKMASGVQVADEVCRIFYDMKVR KCSTPEEIKRKKKAVIFCLSDAKKCIIVEEGKEILVGDVGVTIT DPFKHFGMLPEKDCRYALYDASFETKESRKEELMFFLWAPELA PLKSKMIYASSKDAIKKKFQGIKHECQANGPEDLNRAICAEKLG GSLJVAFEGCPV
6985	1887	1324	RRTAGIYPCFPKPGRTRHALCSVVLLLTGQLAFDDFQESCAMM WQKYAGSRRSMPLGARILFHGVFYAGGFAIVYLIQKFHSRALY YKLAVEQLQSHPEAQEALGPPLNIHYLKLIDRENVDIVDAKLLK IPVSGSKSEGLLYVHSSRGFPQRWHLDEVFLELKDGOQIPVFK LSGENGDEVKKE
6986	642	1350	YHLYFKMGDPNSRKKQALNRLRAQLRKKKESLADQDFDKMYIAF VFKEKKKKSALFEVSEVIPVMTNNYEENILKGVDRDSSYSLESSL ELLQKDVVQLHAPRYQSMRRDVIGCTQEMDFILWPRNDIEKIVC LLFSRWKESDEPFRPVQAKFEFHGHDYEQFLHVLRSKDKTGIV VNNFNQSVFLFIDROHLQTPKNKATIFKLCSICLYLPQEQQLTHW AVGTIEDHLRPYMPE
6987	1623	341	LEAAEKASRAFKEQROTDKSNYETENWSPOKSQRRYDMYNTAC FLGEIEVGLYTIQILQLTPFFHKENELSKKHMVQFLSGKWTIPP DPRNECYLALSFKFTSHLKNLQSDLKRCDFDFIDYMVLLKMYTQ KEIAEIMLSKKVSRCFRKYTELCHLDPCLLQSKESQLLQEENC RKLEALRADRFAGLLEYLNPYKDATTMESIVNEYAFLQONS KKPMTNEKQNSILANIILSCLKPNKLIQPLTTLKKQLREVLFQ VGLSHQYPGPYFLACLLFWPENQELDQDSKLIEKYVSSLNRSFR GOYKRMCRSKQASTLFYLGKRGKGLNSIVHKAKIEQYFDKAQNTN SLWHSQDVWKKNEVKDLLRRLTGQAEGLISVEYGTEEKIKIPV ISVYSGPLRSGRNIERSVFLGFSIEGPPGL
6988	3	689	TQLLRPAVFGSAAAGSIRSLWSASSGHWCAPAGRAHAPVPR LVKRLGAASTAAPQDAQTGPQMPRADCIHRHLPYFCRGQVVRG FGRGSKQLGIPITANFPEQVVDNLPADISTGIYYGNASVSGSDVH KMVVSIGWNPYYKNTKKSMETHIMHTFKEDFYGEILNVAIVGYL

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			RPEKNFDSLESLSIAIQGDIEEAKKRLELPEHLKIKEDNFFQVS KSKIMNGH
6989	2	1118	LMPSDRPLSPSTHASAGSHCHAPPTARRAFPPIPGSKSNMATL KDQLIYNLLKEEQTPONKITVVGVGAVGMACAI SILMKDLADEL ALVDVIEDKLKGEMMDLQHGSLFLRTPKIVSGKDYNTANSKLIV IITAGARQQEGESRLNLVORNVNIFKFIIPNVVKYSPNCKLLIV SNPVDILTYVAVKISGFPPKNRVIGSGCNLDSARFRYLMGERLGV HPLSCHGWVLGEHGDSSVPVWSGMNVAGVSLKTLHPDLGTDKDK EOWKEVHKQVVESEYEVIKLKGYSWAIGLSVADLAESIMKNLR RVHPVSTMIKGLYGIKDDVFLSVPCILGQNGISDLVKVTLTSEE EARLKKSADTLWGIQKELQI
6990	719	258	THASGMASVVLALRTRTAVTSLLSPTATALAVRYASKKSGSS KNLGGKSSGRROGICKMEGHVHAGNIIATQRHFRWHPGAHVGV GKNKCLYALEEGIVRYTKEVYVPHPRNTEAVDLITRLPKGAVLY KTFVHVVPKPEGTFFKLAVML
6991	169	451	RRSSDFHNPGFLSRPVSLENHHQVICSTKNKRRNPKKIAYLL SLLMTNLPNESTENQPVDAWAFITLDQEFITYACVEGTGCLF CGRHVH
6992	944	510	ROAPGCCSLALRQVRQVYCVGLVRAPQVQTRPLSSRFVERRGALY RSPMNQENPPYPYPGPGPTAPYPYPYPQPMGPGMPGPPYPPCGY PYQGYPPQYQWQGGPQEPKTTVYVVEDORRDELGPSTCLTACWT ALCCCLWDMLT
6993	1	374	QWCVTCPQHNARQGPVAPPPGIQAYGAAPFEDLVQDFTEMSKCRG DRVWIKNWNVASLCLPLWKGPTVVLSPPTAVKVEGI PAWIRHSH VKPAARETWEARSPDPNPFRTVLKKTTSAPVTPGS
6994	346	1100	QWPEKDFVMAASSISSPWGKHVFKAILMVLVALIYLLHSLALACSR RDPAPPQQQKREAPVDVLTQIGRSVRGTLDWIGPETMHLVSES SSQVLWAISSAISVAFFALSGIAAQLLNALGLAGDYLAQGLKLS PGOVQTFLLWGAGALVYVWLLSLLGLVLALLGRILWGLKLVIF LAGFVALMRSPDPSTRALLLALLILYALLSRLTGSRASGAQL EAKVGLERQVEELRWQRRAAKGARSVEE
6995	144	1346	GSVAVGLSGIMAAQKDLWDAIVIGAGIQGCFTAYHLAKHRRRIL LLEQFFLPHSRGSSSHGQSRIIRKAYLEDFYTRMMHECYQIWAOL EHEAGTQLHRQTGLLLLGMKENQELKTIQANLSRORVEHQCLSS EELKQRFNIRLPRGEVGLLONSGGVIYAYKALRALQDAIRQLG GIVRDGEKVVEINPGLLVTVKTTSSRSYQAKSLVITAGPWTNQLL RPLGIEMPLQTLRINVCYWREMPGSGVVSQAFPCFLWLGLCPH HIYGLPTCEYPGLMKVSYHHGNHADPEERDCPTARTDIGDVQIL SSFVRDHLPLDKPEPAVIESCMYTNTPDEQFILDHRHPKYDNIVI GAGFSGHGFKLAPVVGKILYELSMKLTSPSYDLAPFRISRFPSLG KAIL
6996	542	1942	ETANAEEAARKSAMDWKEVLRRRLATPNTCPNKKKSEQELKDEE MDLFTKYYSEWKGRINTNEFYKTI PRFYRLPAENEVLLQKLR EESRAVFLQKRSRELLDNEELONLWFLLDKHQTPPMIGEEAMIN YENFLKVGEKAGACKQFFTAKVFAKLLHTDSYGRISIMQFFNY VMRKVWLHQTRIGLSLYDVAGQGYLRESDLNIIILELIPTLPQL DGLEKSFYSFYVCTAVRKFFFLDPLRTGKIKIQDILACSFDD LLELRDEELSKESQETNWFSAPSALRVYGYLNLDDKHNGMLSK EELSRYGTATMTNVFLDRVFOECLTYDGEMDYKTYLDFVLALEN RKEPAALQYIFKLDIENKGYLNVFSLNYFFRAIQELMKIHGOD PVSFQDVKDEIFDMVKPKDPLKISLQDLINSNQGDTVTITLIDL NGFWTYENREALVANDSENSADLDDT
6997	370	1104	AMELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFYFLVRF TVIYNEQMASKRELFNSLQEFAGPSGKLSLLEVCGGTGANFKF YPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMH

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			QVADGSDVVVCTLVLCVKNQERILREVCVRLRPGGAFYFMEH VAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASFSLK LKLOHIQAPLSWELVRPHIYGAVK
6998	2	616	FVSRALLRVRSRRHFAEERAAPGRPEDAPIECPGATNCPEPLWC SHLPVPYAPPTMESRGKSASSPKPDTKVPOVTEAKVPPAADGK APLTKPSKKEAPAEEKQPPAAPTTPAKKTSKADPALLNNHSN LKPAPTVPSSPDATPEPKGPGDGAEEDEAASGGPGGRGPWSCEN FNPILLVAGGVAVAAIALILGVAFLVRKK
6999	14	1591	GRAGACSRRTAMSEIESSDVIRLIMOYLKENS LHRALATLQE ETTVSLNTVDSIESFVADINSGHWDTVLQAIQSLKLPDKTLIDL YEQVVLLELIELRELGAARSLLRQTDPMIMLKQTQPERYIHLNL LARSYFDPREAYPDGSSKEKRRRAIAQALAGEVSVVPPSRIMAL LGQALKWQHQHGLLPGMTIDLFRGKAAVKDVEEEKFPTQLSRH IKFGQKSHVECARFSPDGQYLVGTSGVDGFIEVWNFTTGKIRKDL KYQAQDNFMMDDAVLCMCFSRDTEMLATGAQDGKI KVKI QSG QCLRRFERAHSKGVTCLSFSKDSQILSASFQDQIRIHGLKSGK TLKEFRGHSSFVNEATFTQDGHYIISASSDGTVKIWNMKTTECS NTFKSLGSTAGTDITVNSVILLPKNPEHFVVCNRSNTVVI MNMQ GQIVRSFSSGKREGGDFVCCALSPRGWIYCVGEDFVLYCFSTV TGKLERLTIVHEKDVIGIAHHPHQNLATYSEDGLLKLWK
7000	2	827	GPCVVFLLEMESEGPPESESEFFSQREEEENEEEAQEPEETGP KNPLLQPALTGDEVLQKIFEDPENPHHEQAMQLLEEDI VGRN LLYAAACMAGOSDVIRALAKYGVNLNEKTTTRYTLHLCAAAGRL ETLKALVELDVIDEALNFREERARDVAARYSQTECEFLDWADA RLTLKKYIAKVSLAVTDTEKSGKLLKEDKNTILSACRAKNEWL ETHTEASINELFEQRQOLEDIVTPIFTKMTTPCQVKSASVTSH DQKRSQDDTSN
7001	2056	844	RRCLIIAFLKGCFFIYFIFIFETEFLLSCCPGWSAVAQSRLIAN FASQVOAIFILPKDSQGVDPVKSEAAAPKRALYESVFGSGEICGP TSFKRLCIRPSEPVDVAVVSVKHDPLPLPEANGHRSTNSPTI VSFAIVSPTQDSRPNMSRPLITRSPASPLNNOGIPTPAQLTKSN APVHIDVGGHMYTSSLATLTYPESRIGRLFDGTEP IVLDSLKQ HYFIDRDGQMFYIILNFLTSLKLLIPDDFKDYTLLEYEAKFYQL QPMLEMERWKQDRETGRFSRPECCLVVRVAPDLGERITLSGDK SLIEEVFPEIGDVMCNSVNAGWNHDS THVIRFPLNGYCHLNSVQ VLERLQQRGFEIVGSCGGVDSSQFSEYVLRRELRRTPRVPSVI RIKQEPDL
7002	1043	498	PMPSSSTRWTTSTYTDTS AWACRPTTGCTTAAPGPTVRWWP TPCSRHQSRRLTCWCSTSRPCGR*GGLCVRTAPTRPTTSASS SWTSAGTSWPACRRGTGTATSTTSVWPGCGTRMWS TOWSSV PRSRCCSRPATTPPSKPGAPHAPCASSRHLAHLAPSSPGLPA RGAEVC
7003	818	61	QGRFRAFCWQRDFLQPPGMRLSALLALASKVTLPPHYRYGMSPP GSVADKKRKNPPWIRRRPVVVEPISDEDWYLFCDTVEILEGKDA GKQGVVQVIRQRNWWVVGGLNTHYRYIGKTMIDYRGTMIPSEAP LLHRQVKLVDPMDRKPTETIEWRFTEAGERVVRVSTRSGRIIPKPE FPRADGIVPETWIDGPKDTSVEDALERTYVPCCLKTLQEEVMEAM GIKETR\NTRRSIGIEPGAQQLLPNFCPSLEG
7004	121	2285	FLLPVLTSRSLRQPAVPHARLGGVEPAAMKSARAKTPRKPTVKK G\PKRTLKTQLG/Y YCRVRPLGFPDQECCEIVINNTTVQLHTPE GYRLNRNGDYKETQYSFKQVFGTHTTQKELFDVVANPLVNDLIH GKNGLLFTYGVGTSGKTHMTGSPGEGLLPRCLDMIFNSIGSF QAKRYVFKSNDNRNSMDIQCEVDALLERQKREAMPNPKTSSSKRQ VDPEFADMITVQEFCKAEVDEDSVYGVFVSYIEIYNNYIYDLL EEVPFDPINPNLHNLNCPVKIKNHNMYVAGCTEVEVKSTEEAFE VFWRGQKKRRIANTHLNRESSRSHSVFNIKLVAQPLDADGDNLV

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			QEKEQITISQLSLVDLAGSERTNRTAEGNRLREAGNINOSLMT LRTCMDVLRNOMYGTNKMVPYRDSKLTFLKNYFDGEGKVRMI VCVNPKAEDYEENLQVMRFAEVTQEVEVARPVDKAI CGLTPGRR YRNQPRGP\IGNEPLVTDVVLQSFPLPSCEILDINDEQTLERL IEALEKRHNLRQMMIDEFNKQSNAFKALLQEFDNAVL SKENHMQ GKLEKEKMSIGQKLEIERLEKKNTLEYKIELEKTTIYEED KRNQQELETQNKQLRQFSDKRRLEARLQGMVTETTMKWEK EERRVAAKQLEMONKLVKDEKLKQLKAI VTEPKTEKPERPSRER DREKVTQRSVSPSPVPVSYL
7005	63	876	RNMALYQRWRCLRLQGLQACRLHTAVVSTPPRWLAERLGLFEEL WAAQVKRLASMAQKEPRTIKISLPGGQKIDAVAWNTTPYQLARQ ISSTLADTAAVAVNGEPYDLERPLETDSDLRFLTFDSPEGKAV FWHSTHVLGAAAEQFLGAVLCRGPSTYGFYHDFLKGKERTIR GSELPLVERICOELTAAARPFRRLASRDQLRQLFKNPFKLHL IEKVGTGPTATVYCGGLVDLCOGPHLRHTGOIGGLKLLSNSSS LWRSSG
7006	22	898	NAFGRHSTAVKMAAAWLQVLPVILLGLAHPSPLSFFSAGPAT VAAADRSKWHPIPIPSCKNYFSFGKILFRNTTI FLKFDGEPCLDS LNITWYLSADCYNEIYNFKAEVELYLEKLKEKRGSGKYQTS SKLFWNCSELFKTQTFSGDFMHRPLPGLGEKQEAENGNTLFTIG DKTAMHEPLQTWQDAPYIFIVHIGISSKSSKENSLSNLFMT VEVKGPYEYLTLEDYPLMIFMVMCIVYVLFGLWLWASACYWR DLLRIQFWIGAVIFLGMLEKAVFYAGFO
7007	2	1001	AMTVSGPGTPEPRPATPGASSVEQLRKEGNELFKCGDYGGALAA YTQALGLDATPOQAVLHRNRAACHLKLEDYDKAETEASKAIEK DGGDVKALYRRSQALEKLGRLDQAVLDLQRCVSLEPKNKVPQEA LRNIGGQIQEKVRYMSSTDAKVEQMFQILLDPEEKGT EKKQKAS QNLVVLAREDAEAEKIFRSNGVQLLQRLLEMGETDLMLAALRTL VGICSEHQSRVATLSILGTRRVVSLGVESQAVSLAACHLLQV MFDALKEGVKGFGRGEGAIIVGENKWQVWGLLDVTVMEGMLLSQ PGQFFGDQTCSCRLFGIRFGDIILL
7008	70	1478	CRSALGHERPPPAHLPAAGRRRLQTCPRSCRWLGRPPSGLP PGPR SPPPLAGPGQKMMVQKKPAELQGFHRSFKGNPFELAFSLDQPDH GDSDFLQCSARPDMPASQPIDIPDAKKRGKKKGRATDSFSG RFEDVYQLOEDVLGEGAHARVQTCINLITSQEYAVKII EKQPGH IRSRVFREVELYQCQGHNRVLELIEFFFEEDRFYLVFEKMRGG SILSHIHKRRHFNELEASVVVQDVASALDFLHNKGIAHRDLKPE NILCEHPNQVSPVKICDFDLGSGIKLNGDCSPISTPELLTPCGS AEYMAPEVVEAFSEEASIDKRCDLWSLGVILYILLSGYPFVFG RCGSDCGWDRGEACPAQNMLFESI QEGKYEFPDKDWAHISCAA KDLISKLLVRDAKQRLSAAQVLQHPVVOGCAPENTLPTPMVLQR WDSHFLLPPHPCRIHVRPGGLVRTVTVNE
7009	1	626	ARQLRNSWVDDFVAAPLIPLSQIPTGNSLYESYYKQVDPAYTG RVGASEAALFLKKSGLSDIILGKIWDLADPEGKGFLLDKQGFYVA LRLVACAQSGHEVTLNLSNLSMPPPKFHDTS SPMVTPPSAEAH WAVRVEEKAKFDGI FESLLPINGLLSGDKVKPVLMSKLPLDVL GRVWDLSDIDKDGHLVRDEFAMHLVYRALE
7010	79	571	SHTRRAVVPETLLSPLCPLGGGTAMSGGEQKPERYYVGVVDVGT GSVRAALVDQSGVLLAFADQPIKNWEPQFNHHEQSSEDIWAACC VTKVVOGIDLNQIRGLGFDTCSLVVLDKQFHPLPVNQEGDS HRNVMWLDHRAVSQVNRINETKHSVLQYVGG
7011	3	994	RIQTLPNQNSQOTQPLLTTPPAVLQPIAPOTTFGVQTQPPQSL LQAQISAASITPLLOTQPPQLLQPPQKAGLLQPPVRIVSQPP ARRLDPPSRFSGRNDRGDQVPRKDDRSRERERRRRSRERSPO RKRSRERSRPRRERSRPRRVRVVPRTVQFSKFSLDPCSCDMM ELRRRYONLYIPSDFFDAQFTVWDAFPLSRPFQLGNYCNFYVMH

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			REVESLEKNMAILDPPDADHLYSAKVMLMASPSPMEDLYHKSCAL AEDPQELRDGFOHPARLVKFLVGMKGKDEAMAIGHWSPSLDGP DPEKDPSVLIKT\AIRCCALTG
7012	1	2661	RRAGSVKRGEARLFGPTERQSERPLRPSAARRPEMLSGKAAAA AAAAAAATGTEAGPGTAGGSENGSEVAAQAGLSGPAEVEGPGA VGERTPRKKEPPRASPPGGLAEPGSGAGPQAGPTVPGSATPME TGIAETPEG\RRTSRRKRAKVEYREMDLANLSEDEYYSEER NAKAEKEKLLPPPPQAPPEEENESEPEEPSGVEGAFFQSRLPH DRMTSQEAACFPDIISGPQQTQKVFLFIRNRTLQWLNDNPKIQL TFEATLQOLEAPYNSDTVLVHRVHSYLERHGLINFGIYKRIKPL PTKKTGKVIIIGSGVSGLAARQLQSGMDVTLLEARDRVGGRV ATFRKGNVYADLGAMVVTGLGGNPMVAVSKQVNMELAKIKQKCP LYEANGQAVPKEKDEMVEQEFNRLLEATSYLSHQDFNVLNKP VSLGQALEVVIQLQEKHVKDEQIEHWKKIVKTOEELKELLNKMV NLKEKIKELHQYKEASEVKPPRDIATFELVSKHRDLTALCKE YDELAETOGKLEEKLOLEANPPSDVYLSSRDRLDWHFANLE FANATPLSTLSLKHWDODDDFEFTGSHLTVRNGYSCVPVALAEG LDIKLNTAVRQVRYTASGCEVIAVNTSTSTQTFIYKCDAVLCTL PLGVLKQOPPAVQFVPLPEWKTSAVQRMGFGNLKVVLCFDRV FWDPSVNLFGHVGSTTASRGELFLFWNLKAPILLALVAGEAAG IMENISDDVI VGRCLAAILKGI FGSSAVPQPKETVVSRRADPWA RGSYSYVAAGSSGNDYDLMAQPIPTPGPSIPGAPQPIPRLFFAGE HTIRNYPATVHGALLSGLREAGRIADQFLGAMYTLPRQATPGVP AQQSPSM
7013	1	2661	RRAGSVKRGEARLFGPTERQSERPLRPSAARRPEMLSGKAAAA AAAAAAATGTEAGPGTAGGSENGSEVAAQAGLSGPAEVEGPGA VGERTPRKKEPPRASPPGGLAEPGSGAGPQAGPTVPGSATPME TGIAETPEG\RRTSRRKRAKVEYREMDLANLSEDEYYSEER NAKAEKEKLLPPPPQAPPEEENESEPEEPSGVEGAFFQSRLPH DRMTSQEAACFPDIISGPQQTQKVFLFIRNRTLQWLNDNPKIQL TFEATLQOLEAPYNSDTVLVHRVHSYLERHGLINFGIYKRIKPL PTKKTGKVIIIGSGVSGLAARQLQSGMDVTLLEARDRVGGRV ATFRKGNVYADLGAMVVTGLGGNPMVAVSKQVNMELAKIKQKCP LYEANGQAVPKEKDEMVEQEFNRLLEATSYLSHQDFNVLNKP VSLGQALEVVIQLQEKHVKDEQIEHWKKIVKTOEELKELLNKMV NLKEKIKELHQYKEASEVKPPRDIATFELVSKHRDLTALCKE YDELAETOGKLEEKLOLEANPPSDVYLSSRDRLDWHFANLE FANATPLSTLSLKHWDODDDFEFTGSHLTVRNGYSCVPVALAEG LDIKLNTAVRQVRYTASGCEVIAVNTSTSTQTFIYKCDAVLCTL PLGVLKQOPPAVQFVPLPEWKTSAVQRMGFGNLKVVLCFDRV FWDPSVNLFGHVGSTTASRGELFLFWNLKAPILLALVAGEAAG IMENISDDVI VGRCLAAILKGI FGSSAVPQPKETVVSRRADPWA RGSYSYVAAGSSGNDYDLMAQPIPTPGPSIPGAPQPIPRLFFAGE HTIRNYPATVHGALLSGLREAGRIADQFLGAMYTLPRQATPGVP AQQSPSM
7014	3	3950	DFEVGDKIRILATLEDGWLEGLKGRGTGIFPYRFVKLCPDTRVE ETMALPQEGSLARIPETSLDCLNTLGVVEORHETSDHEAEEPD CIISEAPTSPLGHLTSEYDTRNSYQDEDTAGGPPRSPGVWEM PLATDSPTSDPTEVNGISSQPQVFFHPNLQKSQYYSTVGGSH HSEQYPDLLPLEARTDYASLPPKRMYSQKLTQKPVLPVLYRGS SVSASRVVKPRQSSPOLHNLASYTKKHHTSSVYSISERLEMKPG PQAQGLVMEAAATHSQGDGSTDLDLSTQQLIEFEKSLAGPGTEP DKILRHFSIMDFNSEKDIVRGSSKLITEQELPERRKALRPPPR PCTPVSTSPHLLVDQNLKPAPPLVVRPSRPAPLPPSAQORTNAV SPKLLSRHRPTCETLEKEGPGHMGRLDQTSPCPLVLVRIEEME RDLDMYSRAQEELNLMLEKQDESSRAETLEDLKFCSNIESLN

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			MELQQLREMTLLSSQSSSLVAPSGSVSAENPEQRMLEKRAKIVIE ELLQTERDYIRDLEMCIERIMVPMQQAQVFNIDFEGLFNGMQMV IKVSKQLLALEISDAVGPVFLGHRDELEGTYKIYCQNHDEAIA LLEIYEKDEKIQKHLQDSLADLKSLYNEWGCTNYINLGSFLIKP VQRVMRYPLLLMELLNSTPESHDPKVPLTNAVLAKEINVNINE YKRRKDLVLKRYKGEDSLMEKISKLNHISIIKSNRVSSHLKH LTGFAPQIKDEVFEETEKNFMRQERLIKSPIRDLSLYLQHIRE ACVXVVAVSMWVCMERGHDRLEQFERVHRYISDQFTNFKER TERLVISPLNQLLSMFTGPHKLQKRFDKLDFYNCTERAELK DKKTLLEELQARNNYEALNAQLLDELKPHQYAQGLFTNCVHG AEAHCDFVHQAELQKPLLSLLKVAGREGNLIIFHEEHSRVLQ QLQVFTFFPESLPATKKPFERKTIHQRSARKPLGLPSYMLQSE ELRASLLARYPPEKLFQAEARNFNAQDLDSVLEGLDVGVIKKK DPMGSONRWLIDNGVTCKFVYSSFLKPYNPRSHSDASVGS TESEHGSSSPRFPQNSGSTLTNPNP\SMVSVFTSGSCQKQOP DASPPKEWDQGTLSASLNPSNSESPPSRCPSPDPSTSQPRSGD SADVARDVKQPTATPRSYRNFHFEIVGYSVPGRNGQSQDLVKG CARTAOAPEDRSTEDGSEAEQNOVYFAVYTFKARNPNELSVSA NQKLKILEFKDVTGNTWVLAENVGKKGYVPSNYIRKTEYT
7015	1842	513	RQAWHE\VAAPSWRGARLVQSVLRVWQVGFHVARERVIFFSSLL CFORRCVSCVAGSAFSGPRLASASRNGQGSALDHFLGFSQPD SVTPCVPAVSMNRDEQDVLVHHPDMPENSRLRVVLLGAPNAG KSTLSNQLLGRKVFVPSRVKVTTRCQALGVITEKETQVILLDT GIISPGKQKRHHLELSLLEDPWKSMEADLVVVLVDVSKWTRN QLSPOLLRLCTKYSOIPSVLVMNKVDCLKQKSVLLELTAALTEG VVNGKKLKMRAQAFHSHFGTHCPSPAVKDPNTQSVGNPQRIWPH FKEIFMLSALSQEDVTKLQYLLTQAPQGPWEYHSAVLTSQTPE EICANIIREKLEHLPOEVYPYNVQKTAWEEGPGGELVIOQKL LVPKESYVLLIGPKGHVISQIAQEAQHDLMDFLCDDVDIRLSV KLLK
7016	167	2513	ILNAPKPPPPFRDSVEAFAAKRDTGGGSGWTGMDVSGQETDWRST AFROKLVSQIEDAMRKAGVAHSSKSDMESHVFLKAKTRDEYLS LVARLIHFRDIHNKKSQASVSDPMNALQSLTGGAAGAAGIGM PPRPGQSLGGMGLSGAMQPMPLSGQPPPTSGMAPHSMMAVVS TATPOTOLQLOVAAAAAATARSSSSSSRARYSSSSSSSSSKQ FQAQSAHQ\QFQA\VVQQQQQL\QQQQQQQOHLIKLHHONQQ QIQQQQQQLQRIAQQLQLOQQQQQQQQQQQQQOALQAPPIQPP PMQFPQPPPSQALPQQLQOMHHTQHHPPOPOOPFVAQNQPSQ LPPQSQTQPLVSAQALPGQMLYTPPLKFVRAPMVVQPPVQ QVOOQOTAVOTAQAQMVAPGVQVSQSSLPMLSSPSPGQVQTP QSMPPPPQPSPOPGOPSSQPNNSNVSSGPAPSPSSFLPSPSPQPF QSPVTARTPONFVSPSPGPLNTPVNPSSVMSFAGSSQAEQQY LDKLLQLSKYIEPLRRMINKIDKNEDRKKDLKMKSLDILTDP SKRCPLXTLQKCEIALEKLNDAVPTPPPPVVPPTKQYLCQP LLDAVLANIRSPVFNHSLYRTFVPAMTAIHGPPTAPVVCRRR RLEDDERQSIPSVLQGEVARLDPKFLVNLDPSHCSNNGTVHLIC KLDDKDLPSVPPELSVPADYPAQSPWLWIDROWQYDANPFLQSV HRCMTSRLQLPDKHSVTALLNTWAQSVHQAACLSAA
7017	1	1785	INLGNTCYMNSVI*ALFMATDFRRQVLSLNLNGCNSLMKKLOHL FAFLAHTQREAYAPRIFFEASRPPWFTPRSQCDCSEYLRFLDR LHEEEKILKVOASHKPSEILECSETSLQEVASKAAVLTETPRTS DGEKTLIEKMFGGKLRTHIRCLNCRSTSQAFAETDLSLAFWFS YSLEYMSCPDCSCSPSIQDGLMQASVPGPSEEPVYVNPPTAFA ICDSLNEKTIKSPNEFYCSENTSPVNESNKILVNKDVPQKPG GETTPSVTDLLNYFLAPEILTGDNQYCCENCASLQNAEKTMT EEPEYLILTLRFSYDQKYHVRKILDNVSLPLVLELPVKRITS

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			FSSLSESWSDVDFTDLSENLAKKLPSCGTDEASCTKLVPYLLS SVVHSGISSSESGHYYSYARNITSTDSSYQMYHQSEALALASSQ SHLLGRDPSAVFEQDLNEMSKSEWFLFNDKRVTFTSFQSVQK ITSRFFKDTAYVLLYKKQHSTNGLSGNNPTSLGLWINGDPPLQKE LMDAITKDNKLYLQEQELNARARALQAAASACSFPRNGFDDNDP PGSCGPTGGGGGGGNTVGRVLF
7018	484	1066	SLVFRGNTWSGEAGHHCALFNLAAYHOLFVGTERIRAPETIFQ PSLIGEEQAGIAETLQYILDYRKDQVEMLVQNVFLTGGNTMYP GMKARMEKELLEMRPFRSSFQVLASNPLDAWYGARDWALNHL DDNEVWITRKEYEEKGGEYLKEHCASNIYVPIRLPKQASRSSDA QASSKGSAAAGGGGAGEQA
7019	1046	335	APGGFLVTMVFPAPSPPMWLGCCSHEVTAGPPTLCKDMSALVAA RMRHIPLAGSDWRDLNIEVRLSDGTMARKLRYTHHDKRNGRS SSGALRGVCSCVEAGKACDPAAROFNTLI PWCLPHTGNRHNHWA GLYGRLEWDGFFSTTVTNPEPMGKQGRVLIHQHVVSVRECAR SQGFPTDTRYLFGNILDKHRQVGNVPPPLAKAIGLEIKLCMLAK ARESASAKIKEEEAAKD
7020	1	2154	FADSKRKSVLDDKIKNLQVALTSKQOSLETAMSFVARTNFKRVR NGFLMRKIVAVFFSNTPTTRASPQLREAVLKLSDAGITPLFLTRQE DRQLINALQINNTAVGHALVLPAGRDITDFLENVLTCHVCLDIC NIDPSCGFGSWRPSFRDRRAAGSDVDIDMAFILDSEATTTLFQF NEMKKYIAYLVRLDMSDPKASQHFARVAVVQHAPSESVDNAS MPPVKVEFSLTDYGSKEKLVDFLSRGMTOLQGTALGSAIEYTI ENVFESAPNPRDLKIVVLMITGEVPEQOLEEAQRVILQAKCKGY FFVVLGIGRKVNIKEVYTFASEPNDVFFKLVDKSTELNEEPLMR FGRLLPSFVSSENAFYLSPIRKQCDWFOGDQPTKNLVKFGHKQ VNVPNNTSSPSTSNPVTITTKPVITTTKPVITTTKPVITTTKPVIT INQPSVKPAAAKPAPAKPVAAPVATKIATVRPPVAVKPATAAK PVAAPAAVRPPAAAAAKPVATKPEVPRPOAKPAATKPAATKPK MVKMSREVQVFEITENSAKLHWRPEPEPGPYDYDLTVTSAHDQS LVLKQNLTVTDVIGGLLAGQTYHVAVVCYLRQVRATYHGSFS TKKSQPPPPQPARSASSSTINLMVSTEFALTETDICKLPKDEG TCRDFILKWWYDPNTKSCARFWYGGCGGNENKFGSQKECEKVCA PVLAKPGVISVMGT
7021	2	338	VNAVFFPNGYAFATGSDDATCRLFDLRADQELLYSHDNIICG ITSVAFSKSGRLLLAGYDDFNCNVMDTLKGDRAVLAGHDNRVS CLGVTDDGMAVATGSWDSFLRIWN
7022	2	856	VYIGSFWSHPLLIIDNRKLFEEAEQDLFRDIQSLPRNAALRKLN DLIKRARLAKVHAYIISLKKEMPSVFGKDNKKELVNNLAETI GRIEREHQISPGDFPNLKRMDQDLQAQDFSKFQPLKSKLLEVVD DMLAHDIAQLMVLVRQESQRPIMVKGGAFFEGTLHGPFHGYYG EGAGEGIDDAEWVARDKPMYDEI FYTLSPVDGKITGANAKKEM VRSKLPNSVLGKIWKLADIDKDGMLDDDEFALANHLIKVKLEGH ELFNELEPAHLLPPSKRKVAE
7023	2	748	AMVFGGVVPYVPQYRDIRRTQADGFSTYVCLVLLVANILRILF WFGRRFESPLLWQSAIMILTMLMLKLCTEVRVANELNARRRSF TAADSKDEEVKAPRRSFLDFDPHFQWSSFSYVQCVLAFATG VAGYITYLSIDALFVETLGLAVLTEAMLGVPQLYRNHRHQST EGMSIKMVLMTSGDAFKTAYFLKGAFLQFSVCGLLQVLVDLA ILGQAYAFARHPQKPAPHAVHPTGTAL
7024	1207	190	RTGVTGVVAQVWMFGGGVLSSGEQLQMPVKPERGLGPGSDGWL SSRRGSPGTVLGLPFWLLTPVLVSRISRMILLTRSPATAWHRLS QLKPPVLPGLTGGQALHLRSWLLSRQGPATGGGQGPQGPGLRT RLITGLPGAGLGGAWLALRAEKERLQQQKRTALRQAAGVQGD PHLDHRGRARCKADFRGQWVIMYFGFTCHPDCPDILEKLVQV VROLEAEPGLFPVQPVFITVDPERDDVEAMARYVQDFHPRLLGL

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			TGCTKQVAQASHSYRVYYNAGPKDEDQDYIVDHSIALYLLNPDG LFTDYYGSRSAEQISDSVRRHMAAFRSVLS
7025	232	832	ERNSPIGNENL*K\HSLDCLCFRGDWEGNTQFCTLODNQEECF KQVIRTCERKPTFNQHTVFNHQRNLNTGDKLNEFKELGKAFISG SDHTQHQLIHTSEKFCGDKCEGNTFLPDSEVIQYQTVHTVKKTY ECKECGKSFSLRSSLTGHKRIHTGEKPFCKDCGKAFRFHSQLS VHKRIHTGEKSYECKECGKAFSCG
7026	328	1146	NPNPSIGD1KDIKKAASMLDPAHKSHFHPVTPSLVFLCFIFDG LHQALLSVGVSKRSNTTVGNENEERGTPYASRFKDMFNFI ALEK SSVLRHCCDLLIGVAAGSSDKICTSSSLQVQRFKAMMASIGRLS HGESADLLISCNAESAIGWISSRPWVGELMFTFLFGDFESPLHK LRKFS*LPRKHR*QPINAVRMFLDQCMDGSIALRAIVSEIPVFE EKKKNG*KGIGEIF*VWGCTLPPHYWGAVTTNVPKLSNSGKLLG QDEQPHIFG
7027	43	954	GRRLQQQQRPEDAEDGAEGGKRGEGAGWEGGYPEIVKENKLFH YYOELKIVPEGEGWQFMDALREPLPATLRITGYKSHAKEILHCL KNKYFKELEDLEMDGQKVEVPQPLSWYPEELAWHTNLSRKILRK SPHELEKFHQFLVSETESGNISRQEAUSMI PLLLLNVRFPHKILD MCAAPGSKTTQLIEMLHADNVPFPEGFVIANDVDNKRCCYLLVH QAKRLSSPCIMVVNHDASSIPRLQIDVDGRKEILFYDRILCDVP CSGDGTMRKNIIDVWKKWTTLNSLQLHGLQLRIATRGAEOL
7028	189	608	SRFPEPEPGTMVEKGSDDSSSEKGGVPGTPTSTQSLGSRNFI RNS KKMGSWYSMLSPTYKQNRNEDFRKLFSKLPEAERLIVDYSALQR EILLOGRLYLSNENWICFYSNIFRWETTISIQLKEVTCLKKEKTA KLIPNAIQ
7029	1343	40	VLESENTEAKQATGTSSKLRHGTGQEKREGPRCPGSLAQLRLWG /PCPHAGRETGPASAPIPGS*GHGWHW*RKDGRGERSEGPSAL SPHSPSLNMQQAPTHVGPCEMGSGQRPRSSVPEQVGVGSGLSRE RWRA*RLPGAAASERTEMTKERSP/RPCQGYDSSNWFTOPGKK TRKRSRRNTMVSRRGGCLLYPLQSIMPE*QLR*GAHASPTQG R*GKGGRPSPLTKASGTHIPTPFSGSIP/RPTRDSGFGTDNS\ AAPGQKRHREA*QGPEPV/WGRVTTHLOGPAG*TKPLGS\RNW VPGPAEGEQGEGAGLEGRP*PLKGCSTLTTFSPQLSIPMVGKKP PEGTTASFFP\RSCHSE*RKPPSPCAPHALSLPHPLPLPLPLPL PLPLPGAGT*HSARSGRPGQSETGSLCHNCHCPCPPHCKPCSPGG T
7030	2	521	FVCFAPGSGGQGGKRRVNMELSAVGERVF AAEALLKRRIRKGRM EYLKVKWGSQKYSTWEPEENILDARLLAAFEEREREMELYGPK KRGPKPKTFLKAAQAKAKATYEFRRSDSARGIRIPYGRSPQDL ASTERAREGLRN\RVCPQRQAAPAFAP\PRRGPSGPGPRPG*G PGLHFPFGPGGPKHGFVPASEQHQHQHLP RRGPSPGPGPRPG
7031	960	59	HCSVPGAENPRKPPAQICPQLTSRPHLSPPRSLSPGCGHSPGPG /CKPS/RHCDLHEGPSRTAALPCGKPOPKHGVEECG/PCPCLA PRRLTEPPALTVPVGRAAPSGAL*PSGKACSACSHRLAPEAAL SAAAPRPSLGGSGQNASGLPAASLPPQDSSOPHKTVPSPARSVPP LGAQARAAPPRLWCPRALVSG*EASPEAVSVAAGPPVPGPTPT SGSTASHSRGC*SPR*TPAPPRRDHGRSAFEVLTAASAOQC ASQGGPRPTGAGRTPSPLGLPFSRGPPAASARPPFCRHPSL
7032	1393	2104	RRPGRTPEVPEPPVPPPPRASNSKSRRC*RNHLAPL*QSPLRK SRQIGTSSLPFGRSAGERPRPAATFCLSRGGSSPVFL*PSSSSL EPWMKRQFGRHLHSLFWKSWQKMNSFLLTPKLDTSLSMGWRYRQR LPRLHTFLKKSLOMASELAPPLPTAPLASSLPPPPGPPPLLPV PLA*LSRSGILVPPNSGFSLSCLPLGDH*GSSGEVRGSCGSPPP HHCWVLP PPP*LLLPPR
7033	689	815	RSRDCLSSSATSNRARRSKCSGPKRATPLDSGPGP*APPGPSSA

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			LMPSSCPWRTGALGPSAGSRALGRCTSSVGPGRWLTRTSSP GCATRTWRTMRMEPRPLRSRMGESAPGIPAEPLPSAAPSGPSAPS AAAPSAPTTPAAAGPNTL*SRRTAEWCWPPSCSCCWGC*SWSA WDWRRPPLQVSPAPSSSCRASCWCLESIT*SSSTARSRATGAS SSSTCPTSRSDRGAWTP\SPMGAPLLPCSVPLISREALQDPR NPSP*GVCSSGSGHAGLALGKPPVACSVF
7034	92	1942	EDTSSMPFRLLIPLGLLCALLPQHGGAPGPDGSAADPAHYRERV KAMFYHAYDSYLENAFFDELRLPLTCDGHDWTGFSFSLTLIDALD TLL\TLFYFQILGNVSEFQRVVEVLQDSVDFDIDVNASVFETNI RVVGGLLSAHLLSKKAGVEVEAGWPSCGPLLRMAEEAARKLLPA FQTPPTGMPYGTVNLLHGVNPGETPVTCTAGIGTFIVEFATLSSL TGDPVFEDVARVALMRLWESRSDIGLVGNHIDVLTGKWVAQDAG IGAGVDSYFEYLVKGAILLQDKKLMAMFLEYNKAIRNYTRFDDW YLWVQMYKGTVMSPVFOSEAYWPGLOSLIGDIDNAMRTFLNYY TVWKQFGGLPEFYNIPOGYTVEKREGYPLRPELIESAMYLYRAT GDPTLLELGRDAVESIEKISKVECGFATIKDLRDHKLDRNMESF FLAETVKYLYLLFDPTNFIHNNGSTFDVITPYGECILGAGGYI FNTEAHPIDPAALHCCORLKEEQWEVEDLMREFYSLKRSRSKFQ KNTVSSGPWEPPARPGLTLPSPENHDQARERKPAKQKVPLLSCPS QPFTSKLALLGQVFLDSS*PLDNFFIFIFLRLNLYNKLLLAIIKK K
7035	92	1942	EDTSSMPFRLLIPLGLLCALLPQHGGAPGPDGSAADPAHYRERV KAMFYHAYDSYLENAFFDELRLPLTCDGHDWTGFSFSLTLIDALD TLL\TLFYFQILGNVSEFQRVVEVLQDSVDFDIDVNASVFETNI RVVGGLLSAHLLSKKAGVEVEAGWPSCGPLLRMAEEAARKLLPA FQTPPTGMPYGTVNLLHGVNPGETPVTCTAGIGTFIVEFATLSSL TGDPVFEDVARVALMRLWESRSDIGLVGNHIDVLTGKWVAQDAG IGAGVDSYFEYLVKGAILLQDKKLMAMFLEYNKAIRNYTRFDDW YLWVQMYKGTVMSPVFOSEAYWPGLOSLIGDIDNAMRTFLNYY TVWKQFGGLPEFYNIPOGYTVEKREGYPLRPELIESAMYLYRAT GDPTLLELGRDAVESIEKISKVECGFATIKDLRDHKLDRNMESF FLAETVKYLYLLFDPTNFIHNNGSTFDVITPYGECILGAGGYI FNTEAHPIDPAALHCCORLKEEQWEVEDLMREFYSLKRSRSKFQ KNTVSSGPWEPPARPGLTLPSPENHDQARERKPAKQKVPLLSCPS QPFTSKLALLGQVFLDSS*PLDNFFIFIFLRLNLYNKLLLAIIKK K
7036	442	761	CLAPLFSCFQIINHLAPSGRLRWAWLRGPGRN*LPGEGPSIPT RNW*ERKAGCSQPC/PAQOHGGRPPGVSPLRDPHPPTTLRPLPP PPPPPPPPRRPPRNRRPG
7037	442	761	CLAPLFSCFQIINHLAPSGRLRWAWLRGPGRN*LPGEGPSIPT RNW*ERKAGCSQPC/PAQOHGGRPPGVSPLRDPHPPTTLRPLPP PPPPPPPPRRPPRNRRPG
7038	155	891	GAGAASDMSSGLRAADFPRWKRHISEQLRRRDRLQRQAFEEIIL QYNKLEKSDLHSLVLAOKLQAEKHDPNRHEISPGHDGTWNDNQ LQEMAQLRIKHQEELTELHKRGELAQ\RVIDLNNQMQRKDREM QMNEAKIAECLQTISDLETECLDLRTKCDLERANQTLKDEYDA LQITFTALEGLRKTTEENQELVTRWMAEKAQEANRLNARE*KR LQEAASPAERACRSSKGTSTSTG
7039	155	891	GAGAASDMSSGLRAADFPRWKRHISEQLRRRDRLQRQAFEEIIL QYNKLEKSDLHSLVLAOKLQAEKHDPNRHEISPGHDGTWNDNQ LQEMAQLRIKHQEELTELHKRGELAQ\RVIDLNNQMQRKDREM QMNEAKIAECLQTISDLETECLDLRTKCDLERANQTLKDEYDA LQITFTALEGLRKTTEENQELVTRWMAEKAQEANRLNARE*KR LQEAASPAERACRSSKGTSTSTG
7040	34	789	KITPPRRPHRCSSGSGSDNSSVLSGELPPAMGKTALFYHSGGSS GYESVMRDEATGSASSAODSTSENSSVGGRCRSLKTPKKRSN

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			PGSQRRRLIPALS LDTSSPVRKPPNSTGVRWVDGGLRSEPRGLG EPFEIKVYEIDDERLORRRGGASKEAMCFNAKLKILEHRQORI AEVRKAYEWMKELEATKQYLM LDPNKNLSEFDLEQVWELDSLE YLEALECVTERLES RVNFC A H L M M I T C F D I T
7041	1	567	SGRVAMGRRRAPAGGSLGRALMRHQTQSRSRHRHTDSWLHSTSEL NDGYDWGRNLNLSQSVTEQSSLD DFLATAELAGTEFVAEKLNIKFV PAEARTGLLSFEESQRIKKLHEENKQFLCIPRRPNWNQNTTPEE LKQAEKDNFLEWRROL\VRLEEEQKLITPFPERNLDFWRCLWRV IERSDIVVOIVDA
7042	7	345	PIHMAAALRADII\ISPLFPHIQGYLLLSASHG\ATSLETGKAL PLETVTMYTVIPKSKYVLVLPDTPYPYSENLD EFKRLAENSASN DDLMAEVAISDYGD K L T L E L R E K Y
7043	2	2170	ARGMAARDSSEEDLVSYGTGLEPLEEGERPKKPIPLDQTVRD EKGRYKRFHGAFFSGGFSAGYFNTVGSKEGWTPSTFVSSRONRAD KSVLGPEDFMD EEDLSEFGIAPKAI V T T D D F A S K T K D R I R E K A R OLAAATAPIPGATLLDD LITPAKLSVGFELLRKMGWKEGQGVGP RVKRRPRRQKPD EGVKIYGCALPPGSSEGE D D D Y L P D N V T F APKDVTVPDFTPKDNVHGLAYKGLDPHQALPGTSGEHFNLFSGG SERAGDLGEIGLNKGRKLGISGQAFGVGALEEDDDIYATETLS KYDTVLKDEEPGDGLYGWTAFRQYKNQKESEKDLRYVGKILDGF SLASKFLSSKKIYPPPELPRDYRPVHYFRPMVAATSENSHLLQV LSESAGKATPDGTHSKHQLNASKRAELGETPIQGSATSVLEF LSOKDKERIKEMKQATDLKAAQLKARSLAQAQSSRAQSPSAAA AGHCSWNMALGGGTATLKASNFKPFADPEKQKRYDEFLVHMKQ GQKDALERCLDPSMTEWGRERDEFARAALLYASSHSTLSSRF THAKEEDSDQVEVPRDQENDVGDKQSAVKMMKMFGLTRDTFEW HPDKLLFQ/RLVGLPRVKRDKYSVFNFLTLPETASLPTTOASSE KVSQHRGPDKSRKPSRWDTSKHEKKEDSISEFLRLARSKAEPPK QQSSPLVNKEEHAPELSAN
7044	276	734	EVYLTDEFAKGRKVADLYELVQYAGNIIPRLYLLITGVVYVKS FPQSRKDILKDLVEMCRGVQHPRLRGLFLRNLYLQCTRNILPDEG EPTDEETGDI SDSMD FVLNFAEMNKLWVRMQHQHSRDREKR ERERQELRILVGTNLVRLSQV
7045	3	513	LGFKMEALSRAGQEMSLAALKQHDPIYITSIADLTGQVALYTFCP KANQWEKTDIEGTLFVYRRSASPYHGFTIVNRLNMHNLVEPVNK DLEFQLHEPFLLYRNASLSIYSIWFDKNDCHRIAKLMADVVEE ETRRSQQA/RSGQTESQPGQWLQRPQAHRHGDAEQSQG
7046	3	513	LGFKMEALSRAGQEMSLAALKQHDPIYITSIADLTGQVALYTFCP KANQWEKTDIEGTLFVYRRSASPYHGFTIVNRLNMHNLVEPVNK DLEFQLHEPFLLYRNASLSIYSIWFDKNDCHRIAKLMADVVEE ETRRSQQA/RSGQTESQPGQWLQRPQAHRHGDAEQSQG
7047	103	486	QMKIEKCGWSEGLTSIKGNCHNFYTAISKDVYKELKNLNSKN IMLIDVREIWEILEYOKIPESINVP LDEVGEALQMNPRDFKEKY NEVVKPSKSDS/IVFSYLAGVRSKKALDTAISLGPHSYFER
7048	92	627	FFCLTLSSWDYRHHATRRISSPVFTMEDSGKTFSEEEEEANY WKDLAMTYKQRAENTQEELREFQEGSREYEAELETQLQQIETRN RDLLSENNRLRMELETIKEKFEVQHSSEGYROI SALEDDLQTKA IKDQLQKYIRELEQANDDLERAKRATDHGLSKTFE\QRLN\QAI EKKW
7049	393	938	KRTGSASYGGPPGLGGPATXASVAGRCSSVGKIPARRCYEDEL VPVFEAVGRIYELRLMMDFDGKNRGYAFVVMYCHKHEAKRAVREL NNYEIRPGRLLGVCCSVDNCR LFIGGIPKMKKREEILEETAKVT EGVLDVIVYASAADKMKNRGLRLRGVREPPRGCHWLGRKLIAX ASSLWG
7050	393	938	KRTGSASYGGPPGLGGPATXASVAGRCSSVGKIPARRCYEDEL

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			VPVFEAVGRIYELRLMMDFDGKNRGYAFVVMYCHKHEAKRAVREL NNYIIRPGRLLGVCSSVDNCRLEFIGGIPKMKKREELIEEIAKVT EGVLDVIVYASAADKMKNRGLRLRGVREPPRGCHWLGRKLIAX ASSLWG
7051	119	816	KKMNLAEICDNAKKGREYALLGNYDSSMVVYQGVMOOIORHCQS VRDPAIKGKQVQVROELLEEEYEQVKSIVGTLESFKIDKPPDFPV SCQDEFFRDPAVWPPVPAEHRAPPOIRR/RQSRKSTSEERNGR SRSPGTCRPST\PISKSEKPTSRDKDYRARGRDDKGRKNMQDG ASDGEMFKFDGAGYDKDLVEALERDIVSRNPSIHWDIADLEEA KLLREAGVLPMMW
7052	467	715	SCPGRGKMSKLLNPEEMTSRDYDFDSYAHFGIHEEMLKDEVRTL TYRNSMYHNKHVFKDKVVLVDVSGSGTGILSMFAAROGPRR
7053	467	715	SCPGRGKMSKLLNPEEMTSRDYDFDSYAHFGIHEEMLKDEVRTL TYRNSMYHNKHVFKDKVVLVDVSGSGTGILSMFAAROGPRR
7054		1036	GTGQRSTEDARRRSAGAEPARLPWPALEEWSPSCPEPLGEG RRCRWDAMEYDEKLARFQAHLNPFNKQSGPRQHEQCPGEEVDP VTPEEALPELPPGEPEFRCPERVMDLGLSEDFSRPVGLFLASD VQQLRQAIEECKQVILELPEQSEKQKDAVVRLIHLRLKLOELKD PNEDEPNIRVLEHRFYKESKSVKQTCDCNCTIIWGLIQTWYT CTGCYYRCHSKCLNLJSKPCVSSKVSQAEYELNICPETGLDSQ DYRCAECRAPI/CS/DGVVPSEARQCDYTGYYCSHCHWDLAV IFARVVHWNDFEPRKVSRCMSRYLALMVSRPVLRLREIN
7055	2	527	DSRRVSWRSWLANE/WGKHLCLFIWLSMNVLFWKTFLLYNQGP EYHYLHOMLG/ALCLSRASASVLNLCSLIILPMTCLLALYLRG SQKVPSRRTRRLLDKSTTFHITCGATICIFSGVHVAHLVNALN FSVNYSEDFVELNAAARYDEDPKLLFTTVPGLTGVCMEVVLFL M
7056	2	527	DSRRVSWRSWLANE/WGKHLCLFIWLSMNVLFWKTFLLYNQGP EYHYLHOMLG/ALCLSRASASVLNLCSLIILPMTCLLALYLRG SQKVPSRRTRRLLDKSTTFHITCGATICIFSGVHVAHLVNALN FSVNYSEDFVELNAAARYDEDPKLLFTTVPGLTGVCMEVVLFL M
7057	1368	431	GIYLVNEKIFRPTCIGDRQENDKENLNLENHRDOELLHASCOA SGEVPSQASLRGFFTEDEPGCFGEENLPEALQNIODEGTGEQL SPQERISEKQLGQHLNPNHSGEMSTMWLEEKRETSQKQPRAPM AOKLPCTCRECGKTFYRNSQLIFHORTHGETYFOCTICKKAFLR SSDFVKHORTHTEGKPKCKDYCGKGFSDFSGLRHHEKIHTGEKP YKCPICEKSFIOQRNFRHQRVHTGEKPYKCSHCGKSFSSSSL DKHORSHLGKPKPQ*PVTKLSFPISISQPSHNTQLHQEELCLR GYPC
7058	3	469	FSGFGAVPDALGCRMSDLRITEAFLYMDYLCFRALCCKGPPPAR PEYDLVLCIGLTSGKTSLLSKLCSSEPDNVVSTTGPSIKAVPFQ NAILNVKELGGADNIRKYWSRYQCSQGVIFVLDSASSEDDELEA ARN*SCOTOLLQHPQLCTLPLFLILA
7059	1	1178	WPAFFRQPAAMADALLGTGPRRARGCLGAAGPTSSGRAARTPA APWARPSAWLECVVVTFDLELGALELVYPNDFRLTDKEKSSI CYLSFPDSSHSGCLGDTQFSFRMRQCGQSPWHADDRHYNSRAP VALQREPAHYFGYVYFRQVKDSSVKRGYFQKSLVLVSRLPFVRL FOALLSLIAPEYFDKLAPCLEAVCSEIDQWPAPAPGQTLNLPVM GVVVQVRIPSRVDKSESSPPKQFDQENLLPAPVVLASVHEDLDF RCFRPVLTHTMQLWELMLLGEPLLVLAESPVSSEMVLALTSCL QPLRFCCDFRPYFTIHDSEPKFTTTRTQAPPNVVLGVNTNPFIFK TLQHWPHILRVGEPKMSGDLFKQVKLKKPFKV*RPWDTKP
7060	90	1670	SVNLPPSLWPNEEAMDSTKSEPLKGSPEAEDGNIEYKLVNPSQ YRFEHLVTOMKWRLQEGRGEAVYQIGVEDNGLLVGLAEEMRAS

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			LKTLHRMAEKVGADITVLREREVDYDSMPRKITEVLVRKVPDN QQFLDLRVAVLGNVDSGKSTLLGVLTQGLDNGRGRARLNLFRR LHEIQSGRTSSISFEILGFNSKGEVHGINGTQWGQTLRMGW*** RT*DGCRVWRLFEIV*MNALRGL*TSSAPLRKSMGNQLN*IKNG VKIKRQGHGPNGLGPGNSEGVGRAGRRH*GPWALGQVNVYSDSR TAEICESSSKMITFIDLAGHHKYLHTTIFGLTSYCPDCALLV SANTGIAGTTREHLGLALALKVPFFIVVSKIDLCAKTTVERTVR QLERVLKQPGCHKVPMVLTSEDDAVTAAQFAQSPNVPTIFTLS SVSGESLDLLKVFNLNLPPLTNSKEQELMQQLTEFQVDEIYTV PEVGTVVGGTLSR*IDLLATLPTQPSPIYSKTSWPKGGDPGI
7061	364	710	ARMPSPLGPPCLPVMDEPPTLEETARLRFRGFCYQEVAGPRE ALARLRELCCOWLOPEAHSKEQMLEMLVLEQFLGTLPPETQAV RGQRPGSPPEAAALVEGLQHPD*ARMPSPLGPPCLPVMDEPPTL EEPETARLRFRGFCYQEVAGPREALARLRELCCOWLOPEAHSKE QMLEMLVLEQFLGTLPPETQAVRGQRPGSPPEAAALVEGLQHPD PGQLLG
7062	71	744	AKAGTNLERLHWLSYFFCTPKHLKSSQKDKVRQFMCTQAGER TAIYCLTQNEWRLDEATDSFFQNPDSLHEESMRNAVDDKKLERL YGRYKDPQDENKIGVDGIQFCDDLSLDPASISVLVIANKFRAA TQCFESRKEFLDGMTLGCDSMEKLLKALLPRLEQELKDTAKFKD FYQFTFTFAKNPGQKGLDL*MAGAYWKLVLSGRFKFLYLWNTFL MEHH
7063	2	562	LRTVPDLPGRRFRAMRTGQRR*PELPDMNSLEQAEDLKAFERR LTEYIHCLQPATGRWRMLIVVSVCTATGAWNWLIDPETQKVSF FTSLWNHPFFTISCITLIGLFFAGIHKRVVAPSIIAARCRTVLA EYNMSCDDTGKLIKPRPHVQ*QSSLIVMGLKIAFLRISDTAKS HKGFLRLDM
7064	300	884	RDTGSDPSSTRRLCSTCCTGH*PAEPIASPHPSRGTCPPASSAS RRTGWCCTPPESGHAQARRSRASASRWGARGAVRSAVAARGC SSRAGRWLETGRRRGPPACAAAGRLRGFAP*AAPPTASVPAR CRCPAARTGAPAAATWLRRLSLGLRAPALCRRRSPGPSPKSAAP PLLTPLAGRAGGSRANS
7065	1	555	ATTHSARRSGRGAAAEAAASAAGGRQKGFDRKAWEGRRTPGG RSQSEPKAPPQKRSEAFASMAHSPVAVCPVGMQNNIADPEEL FTKLERIGKGSFGEVFKGIDNRTQQVVAIKIIDLAEAEDEIEDI QQEITVLSQCDSSYVTKYGSYLKGSKLWIIMEYLGGSALDLL RAGPFDEFQ
7066	356	676	PGPQRGPRAREGGHPLDPADHFRAPASLRNSVRAATMMQICDT YNQKHSLFNAMNRFIGAVNNMDQTMVPSLLRDVPLADPGLDND VGVEVGSGGCLEERTPP
7067	152	973	KENITMATEIGSPPRFFHMPRFQHQAPROLFYKRPDFAQQQAMQ QLTFDGKMRKAVNRKTIIDYNPSVIKYLENRIWORDQDMRAIQ PDAGYYNDLVPIGMLNNPMNAVTTKFVRTSTNKVKCPVFFVRW TPEGRLVTGASSGEFTLWNLTFNPTIILQAHDSPVRAMTWSH NDMWMLTADHGGYVKYQSNMNMNVKMPQA*KEAIREARFIHNIP FSVVPIVMVKLFSKILGAEMHGLCQFLGNLHPINTIFFFVFT HSPFCWAPP
7068	222	816	DTMKEYVLLFLALCSAKPFFSPSHIALKMMMLKDMEDTDDDD DDDDDDDDDEDNSLFPPTREPRSHFFPDLFPMCPFGQCYSRV VHCSDLGLTSVPTNIPFDTRMLDLQNNKIKEIKENDFKGLTSLY GLILNNKLTKIHPKAFLTTKKLRLRYLSHNLSEIPLNLPKSL AELRIHENKVKIKQDTFKKK
7069	1147	1765	FRDHRRYFYVNEQSGESQWFFPDGEEEEESQAQENRDETAKQ TLKDKTGTDSNSTESSETSTGSLCKESFSGQVSSSSMLPTFPF TLQSNVPVLQPLPLEMFPPPPPPPPPPPPPPPPPPPPPPPPPPPP

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			EKTKKGRKDKAKKSKTKMPSLVKKWQSIQRELDDEEDNSSSSEEDRVSTAQKRIEENKQQQLVSGMAERNANFEA
7070	1	547	DGTMEDSEAVORATALIEQRLAQEEENEKLRGDAROKLPMDLLVLEDEKHNCAQSAALQKVKGOERVRKTSLLDLRREIIDVGGIQNLIELRKKRKQCKRDALAAASHEPPPEPEEITGPDDEETFLKAAVEGKMKVIEKFLADGGSDATCDQPRRTALHRASLEGHMEILEKLLDNGATVDFQ
7071	2	921	ARGTLRALETAKKVGKVGANGQKAAGPSADSVTENKIGSPPKTPVSNVAATSAGPSNVGTELNSVPOKSSPFLTRVPAYPPHSENIQYFODPRTQIPFEVPPQYPTQGYPPPTVPAGVAPCVPRFVRSMNVPESSLPPASMPYADHYSTFSRDRMNSSPYQPPPPQPYGPVPPVPSGMYAPVYDSRRIWRPPMYQRDDIIRSNSLPPMDVMHSSVYQTSLRERYNSLDGYYSVACQPPSEPRTTVPLPREPCGHLKTSCEEQIRKKPDQWAOYHTQKAPLVSSSTLPVATQSPPTPSTLNRGEES
7072	2	921	ARGTLRALETAKKVGKVGANGQKAAGPSADSVTENKIGSPPKTPVSNVAATSAGPSNVGTELNSVPOKSSPFLTRVPAYPPHSENIQYFODPRTQIPFEVPPQYPTQGYPPPTVPAGVAPCVPRFVRSMNVPESSLPPASMPYADHYSTFSRDRMNSSPYQPPPPQPYGPVPPVPSGMYAPVYDSRRIWRPPMYQRDDIIRSNSLPPMDVMHSSVYQTSLRERYNSLDGYYSVACQPPSEPRTTVPLPREPCGHLKTSCEEQIRKKPDQWAOYHTQKAPLVSSSTLPVATQSPPTPSTLNRGEES
7073	50	504	LAHGSFGVSDFFAPAAAPAHLTLSFSGSLSPQFRKPLGRAPAMPVRYRKVVILGYRCVGKTSLAHOFVEGEFSEGYDPTVENTYSKIVTLGKDEFHLHLVDTAGQDEYSILPYSFIIGVHGYVLVYSVTSLSHFQVIESLYQKLHEGHGK
7074	263	1003	VCPVLCTRQEPGHSSLVTYFGKPTRRKEFLGHGCIAGKMNISVDLETNYAELVLDVGRVTLGENSRKMKDKCKLRKKQNERVSRAMCALLNSGGGVKAEIENEDYSYTKDGIGLDLENSFSNILLFVPEYLDQMONGNYFLIFVKSWSLNTSGLRITLSSNLYKRDITSKVMNATAALEFLKDMKKTRGRLYLRPELLAKRPRVDIQEENNMKALAGVFFDRTELDRKEKLTFTSTHVEI
7075	598	1005	NYINFFFRKEYPPHVQKVEINPVRLSRLOQVERIMKKTESESEQVEPEIKRKVKQKRCSTYQPTPPLSPASKKCLTHLEDLQRNCRQAITLNESTGPLLRTSIHQNSGGQKSQNTGLTTKKFYGNVNEKVPIDII
7076	275	1049	LQSESSNAAEGNEQRHEDEQRSKRGGWSKGRKRKKPLRDSNAPKSPLTGYVRFMNERREQLRAKRPEVFPPEITRMLGNEWSKLPPEEKORYLDEADRDKERYMKELEQYQKTEAYKVFSRKTQDRQKGKSHRQDAARQATHDHEKETEVKERSVFDIPIFTEEFNAHSKAREAEELRQLRKSNMFEPRNAALQKHVESMRTAVEKLEVDVIOERSRNTVLOQHLETLRQVLTSSFASMPLEXPGETPTVDTIDSYM
7077	3	1119	SSMGSNSEINGLALRKTDKYGFLLGGSQYSGSLKSSIPVDVARQRELKWLDMFSNWDKLSRRFQVKLRCKRGIPSSLRAKAWQYLSN SKELLEONPRKFEELERAPGDPKNLDVIEKDLHRQFPFHEMFAARGGHGQODLYRILKAYTIYRPDEGYCQAQAPVAAILMHMPAEQAFWCLVQICDKYLPGYYSAGLEAQLDGEIFFALLRRASPLAHRHLRRQRIDPVLYMTWFMCI FARTLPWASVLRVWDMFFCEGVKIIFRVALVLLRHTLGSVEKLRSCQGMYETMEQLRNLPPQCMQEDFLVHEVTNLPVTEALIERENAAQLKKWRETRGELQYRPSRRLHGSRAIHEERRRQPPPLGPSSS
7078	483	767	FOGQRMAGEQKPSNILEQFILLAKGTSGSALTALISQVLEAPGVYVFGELLELANVQELAEAGANAAYLQLLNLFAYGTYPDYIANKE SLPELY
7079	2	376	SVVEFKRPKEPSGSDGESDGPIDVGQEGQLSQMARPLSTPSSSQMOARKKRRGIIEKRRDRINSSSELRRVLPTAFQKQGSKLEK

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			AEVLQMTVDHLKMLHATGGTGTALLFQASFIQOIF
7080	200	595	VQLFLEAPCLSLSCRDHSGGNRDLRRHRDCRVYGSPODGIPIY LTHPLCHQDVVSVGRQLQIRALATPGHTQGHVLVLLDGEPIYKGPS CLFSGDLLFLSGCGEFPKRKEELGEEGETEVRAATVPWRALKP
7081	213	506	AVTEEMILNSLSLCYHNKLLAPMVRVGTLPMLLALDYGADI VYCEELIDLKMIQCKRVVNEVLSTVDFVAPDDRVRVFTCEREQN RVVFQMGTS
7082	3	1137	APSRNTMLMAWCRGPVLLCLROGLGTNSFLHGLGQEPFEGARSL CCRSSPRDLRDGEREHEAAQRKAPGAESCPSPLSISDITGCL SSLENLRPLTLREESSPRELEDSSGDQRCGPTHQCSDEDPMSLS QAQSATEVEERHVSPPCSTSRERPFQAGELILAETGEGETKFKK LFRNNFGLLNSNWGA VPFKIVGKFPQGI LRSSFGKOYMLRRP ALEDYVVLKMRGTATFPKIDINMILSMMDINPGDITVLEAGSGSG GMSLFLSKAVGSQGRVISFEVRKDHDLAKKNYKHWDRDSKLSH VEEWPDNVDFIHKDISGATEDIKSLTFDAVALDMLNPHVTLPVF YPHLKHGGVCPVYVNIQTQVIELLD
7083	115	541	RSNAVOLTRMEYAMKSLSLLYPKSLSRHVSVRTSVVTQQLLSEP SPKAPRARPCRVSTADRSVRKIMAYSLEDLLKVRDTLMLADK PFFVLVEDGTTVETEEYFQALAGDTVMVLQKGQKWQPPSEQG TRHPLSLSHK
7084	3	522	NSVSVSSQSRLASVPGTGVORSAAADMAASTAAGKORIPKVAK VKNKAPAEVQITAEQLLREAKERELELLFPPOQKI TDEEELND YKLRKRKT FEDNIRKNRTVISNWKIYAQWEESLKEIQARSIYE RALDVDRNITLWLKYAEMEMKNQVNHARNIWDRAITTL
7085	243	1495	RQLARLRRRGWRSPFGGAPMAHITINQYLOQVYEAIDSRDGASC AELVSFKHPHVANPRLQMASPEEKQCVLEPPYDEMFAAHLRCT YAVGNHDFIEAYKCQTVIVQSFLRAFOAHKEENWALPVMYAVAL DLRVFANNADQQLVKKGSKVGMLEKAAELLMSCFRVCASDTR AGIEDSKKWMGLFLVNQLFKIYFKINKLHI CKPLIRAIIDSSNLK DDYSTAQRVTYKYVGRKAMFDSDFKQAEYLSFAFEHCHRSSQ KNKRMI LIYLLPVKMLLGHMPTVELKKYHLMQFAEVTRAVSEG NLLLHEALAKHEAFFIRCGIFLILEKLKI TYRNLFKKVYLL KTHQLSLDAFLVALKFMQVEDVDIDEVQCILANLIYMGHVKGYI SHQHQKL VVSKQNPFPPLSTGC
7086	256	525	ILAAARMGKQNSKLREPEVMQDLLESTDFTEHEIQEWYKGLRDCP SGHLSMEEFKKIYGNFFPYGDASKFAEHVFTFDANGDGTIDFR EF
7087	166	723	LSGSAGKVAAPCVPPSNHELVPITTENAFKNVVDKGEASRGG NTRKSLDNGSTRVTPSVQPHLQPIRNMVSVRTMEDSCELDLVY VTERIIAVSFPPSTANEENFRNLREVAQMLKSKHGGNYLLFNLS ERRPDITKLEAKVLEFGWPDLEHTPALEKICSICKAMDTWLNHP HRCRVLHNKG
7088	104	759	GTSAA SPSSLLEMA GEITETGELYSSYVGLVYMFNLIVGTGALT MPKAFATAGWLVSLLVFLGFMSTTTTFVIEAMAAANAQLHW KRME NLKEEDDDSSASDSVLIRDNYERAERKRPILSVQRGS PNPFEITDRVEMQGMAMFFNKVGNLFYFCIIIVLYGDLAIYA AAVPFSLMQVTCSATGNDSCGVEADTKYNDTDRCWGLRRVD
7089	33	1775	SVCWEDRYLKARMEESPLSRAPSRGGVNFNLNARTYIIPNTKVEC HYTLPPGIMPSASDWIGIFKVEAACVRDYHTFWSSVPESTTDG SPIHTSVQFQASYL PKPGAQLYQFRVYVNRQGVCGQSPFPQFRE PRPMDELVTLEEADGGS DILLVVPKATVLQNQLDESQQRNDLM QLKLOLEGQVTELRSRVQELERALATARQEHTELMEQYKGISRS HGEITEERDILSRQGDHVARILELEDDIQTISEKVLTKVEELD RLRTV KALTREQEKLGLKEVQADKEQSEAEQLVAQCENHHL NLDLKEAKSWQEEQSAQAQRLKDKVAOMKDTLGQAQORVALEP

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			LKEQLRGAQELAAASSQOKATLLGEELASAAAARDRTIAELHRSR LEVAEVNGKLAELGLHLKEEKQOWSKERAGLLQSVAEKDKILK LSAEILRLKAVOEERTONQVFKTELAREKDSLSVLSESKEB TELRSALRVLQKEKEQLQEEKQELLEMYMRKLEARLEKVADEKWN EDATTEDEEAAGVGLSCPAALTDSEDESPEDMRLHPMAFVSVETQ ASLLGLLE
7090	33	1775	SVCWEDRYLKARMEESPLSRAPSRGGVNFNLVARTYIPNTKVEC HYTLPPGTMPASDWIGIFKVEAACVRDYHTFVWSSVPSTTDG SPIHTSVQFOASYLPKPGAQLYQFRVNRQGVCGSQPPFQFRE PRPMDELVTLEADGSDILLVVPKATVLQNLDESQQRNDLM QLKLQLEGQVTELRSRVQELERALARQEHTELMEQYKGISRS HGEITEERDILSRQGGDHVARIIELEDDIQTISEKVLTKVELD RLRDTVKALTREOEKLLGQLKEVOADKEQSEAEQLVAQGENHHL NLDLKEAKSWQEEQSAQAQRLKDKVAQMKDTLQQAQORVAELEP LKEQLRGAQELAAASSQOKATLLGEELASAAAARDRTIAELHRSR LEVAEVNGKLAELGLHLKEEKQOWSKERAGLLQSVAEKDKILK LSAEILRLKAVOEERTONQVFKTELAREKDSLSVLSESKEB TELRSALRVLQKEKEQLQEEKQELLEMYMRKLEARLEKVADEKWN EDATTEDEEAAGVGLSCPAALTDSEDESPEDMRLHPMAFVSVETQ ASLLGLLE
7091	186	1076	EGMLTREHRCGRSEEQLEPWPSPKKARSGRWLRNGFKRKMEEP EPPADSGQSLVPVYIYSPEYVSMCDLAKIPKRAMVHSLIEAY ALHKQMRIVKPKVASMEEMATFHTDAYLQHLQKVSQEGDDDDHPD SIEYGLGYDCPATEGIFDYAAAIGGATITAAQCLIDGMCKVAIN WSGGWHHAKKDEASGFCYLNDVGLILRLRRKFERILYVDLDLH HGDGVEDAFSTSKVMTVSLHKFSPGFFPGTGDVSDVGLGKGRY YSVNVPIQDGIQDEKYIOICERYEPPAPNPGL
7092	522	809	KQGINEDQESQKFLGEGCEPISKQMKKLIKQKOWEEQRELR KOKRKEKRRKKLERQCOMEPNSDGHDRKRVRRDVVHSTLRLLI DCSFDXLM
7093	454	655	NFGVSGVELAQASVMRMSFVIAACQLVLGLLMTSLTESSIONS ECPQLCVCEIRPWFPTPOSTYREA
7094	2	508	FVRSMHVGWGFASSRPCVVDLSWNQSIISFFGWAGSEEFPSFYG DIIAPFLQDYGGIMAGLSDPWKKTLTYLTGALLAAAYLLHE LLVIRKQOEIDSKDAIILHQFARFNNGVPSLSPFLCKMETYLRM ADLPYQNYFGGKLSAQCKMPWIEYNHEKVSGETFI1
7095	1	411	IASSLPKMASLQSDRVLYLVQGEKKVRAPLSQLYFCRYCSELR SLECVSHEVDSHYCPSCLENMPSAEAKLKNRCANCFDCPGCMH TLSTRATSISTQLPDDPAKTTMKKAYYLACGFCRWTSRDVGMAD KSVGE
7096	224	2067	ETRSLAVQEKPSQAGRRRSSRISFAGALFLTRFLLOELLNNFC SAMSPAPDAAPAPASISLFDLSADAPVFQGLSLVSHAPGEALAR APRTSCSGSGERESPERKLLQGPMIDISEKLFCTCDQTFQNHQE QREHYKLDWHRFNLKORLKDKPLLSALDFEQSSTGDLSSISGS EDSDSASEEDLQTLDRERATFEKLSRPPGFYPHRVLFQNAQQGF LYAYRCVLGPHQDPFEEAELLQNLQSKGPRDCVVLMAAAGHFA GAIFQGREVVTHKTFHRYTVRAKRGTAQGLRDARGGSPHSAGAN LRRYNEATLYKDVRLLAGPSWAKALEEAGTILLRAPRSGRSLF FGGKGAPLQRGDPRWDIPLATRRPTFQELQRVLHKLTLHVYE EDPREAVRLHSPOTHWKTVREERKKPTEEEIRKICRDEKEALGO NEESPKQSGSGEGEDGFQVELELVELTVGLDLCESVLPKRRR RKRKKKEKSRDQEAHAHRTLLQQTQEEEPSTQSSQAVAAPLGPL LDEAKAPGQPELWNALLAACRAGDVGLKQLQAPSPADPRVLSL LSAPLGSGGFTLLHAAAAAGRGSVVRLLEAGADPTVQCQDH
7097	256	1228	IRTKSAATWEAWFQCGREGSRITTEPCANAGSRQELQTERISS FLAAQGDQAFHSGLETNNSNELPLRVGLKVAQGSPLMGGQVSA

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			SNSFSRLHCRNANEDWMSALCPRLNDVPLHLSIPGSHDTMYC LNKKSPISEESRLQLLNKALPCITRPVVLKNSVTOALDVTEQ LDAGVRYLDLRIAHMLEGSEKNLHFVHMVYTALVEDTLTEISE WLERHPREVVIACRNFEGLSEDLHEVLVACIKNIFGDMLCPRG EVPTRLRQLWSRGQQVIVSYEDESSLRRHHELWPGVFWGWRVK TEALIRVLETMKSCGR
7098	82	956	SSFLKRCRKVLGCWGPSEQLFSTLEEFPRDKEIDNYCVMRLQT EARSGFWAPNRFVNI CRMTAVDGDGRGSSRETCHFHPSLEA LVLLQDQWQPGVGICTSFLGISWALLDYHRALRTCLPSKPLLG LGSSVIYFLWNILLWPRVLAVALFSAFSPSYVALHFLGLWLVL LLWVNLQGTDFKPDPSSEWLYRVTVATILYFSWFNVAEGRTRGR AIIHFALLSDSILLVATWVTHSSWLPSPGIPQLWLVPVCGCGCF LGLALRLVYYHNLHPSCCWKPDPOVD
7099	992	210	LFRLAPGFLRLARQGYHQIWAFFPLPSGATATWPAASRSRLA ARSLPRSPARPGFNDALLGEHDFRGQGVRAQRFRSEEPGPGAD GAVLEVHPQIGAGVSLPGILAAKCGAEVILSDSSELPHCLEVC ROSCQMNPLPHLOVGLTWGHISWDLALPPODIILASDVFFEP EDFEDILATIYFLMHKNPKVQLWSTYQVRSADWSLEALLYKWD KCVHIPLESFDAKDEDIAESTLPCRHTVEMLVISFAKDSL
7100	205	671	ANGGFWEAAPGSEVSLPLWVPTASHSKTTALGIGSAPPHLSVL FLFSFPQGLGDFLEAFVFKKYDRNGLNVSIECKRVSGLEPATV DWAFDLTKTNMOTMYEQSEWGWKDKREEMTDDRAWYLI AWEN SSVPVAFSHPRFDVERGDEVLYW
7101	2	503	WRGGPRRAKRLAGGAVGWVLLVRGVHVRAGGGRPFRADMKKD VRILLVGEPRVGKTSLIMSLVSEEPPEVPRAEETITPADVTP ERVPTHTVDYSEAEQSDQLHQEISQANVICIVAVNNKHSIDK VTSRWIPLINERTDKDSRLPLILGKNKSDLVEYSR
7102	2	503	WRGGPRRAKRLAGGAVGWVLLVRGVHVRAGGGRPFRADMKKD VRILLVGEPRVGKTSLIMSLVSEEPPEVPRAEETITPADVTP ERVPTHTVDYSEAEQSDQLHQEISQANVICIVAVNNKHSIDK VTSRWIPLINERTDKDSRLPLILGKNKSDLVEYSR
7103	119	438	GSQSSVAVNIRSGTDEESMDLMNGQASSVNIAATASEKSSSES LSDKGSSELKKSFDVAVVDFVLKVTPEEYAGQITLMDVPVFKAIQ DELSSCGWNKKEKYSSAP
7104	1670	795	RLWEHRVSAGASGWLSSPGCLLHPSLPEEERVDILINAGV MRCPHWTTEDGFEMQFGVNLGEAWAGAAPWVQAILPRPPKVL GF*V*VKSDLFIILNPGHLLTNLLDLKLKASAPSRILNLSLA HVAGHIDFDDLWQTRKYNTKAYCQS\KLAIVLPTKELSRRLQ GSGVTVNALHPCVARTELGRHTGIHGSTFLOHNN\WAHLAAMS KSPRSWPAPAQHNTLAVAEELA\VISGKYFDGLKQKAPAEAD EEVARRLWAESARLVGLEAPSVRZQPLPR
7105	765	143	GQMCRRPSPKSTSCLSMTCDLP/RGLQDPOCLALFRVAVDKHQA LLKRAMSGQGVDRHLFALYIVSRFLHLQSPFLTQVHSEQWQLST SQIPVQQMHLFDVHNYPDYVSSGGGFGPADDHGYGVSYIFMGDG MITFHISKKSSSTKTDSHRLGQHIEDALLDVASLFQAGQHFKRR FRSGGKENSRRHRCGLSRQTGASKASMTSTDF
7106	14	1064	GLQAGHPHPRSASRIPEADTH\YSKLQRAFDSIVNKDHRMFGT YFRVGFPGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCQCF GAEFVEVIKDSFTVDKTKLDPNKAYIQITFVEPYFDEYEMKDRV TYFEKNFNLRRFMYTTPFTLEGRPRGELHEQYRRNTVLTMMHAF PYIKTRISVIQKEEFVLTPIEVAIEDMKKKTQLAVAINQEPDP AKMLQMVLGQSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKL RLCFKEFIMRCGEAVEKNKRLITADQREYQOELKQYNNKLENL RPMIERKIPELYKPIFRVESQKRDSFHRSSFRCBETQLSQGS
7107	1145	591	*I*WLQTGKKK

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7108	1	942	VKVALLLTNLEQPRTESEWENSPTLKMFLQFVNLNSSTFYIAP FLGRFTGHPGAYLRLINRRLEECHPSGCLIDLQMGIIHVLK OTWNNFMELGYPLIONWWTRRKVRQEHGPERKISFPQWEXDYNL QPMNAYGLFDEYLEMILOFGFTTIFVAAPPLAPLALLNNIIEI RLDAYKFVTQWRPLASRAKDIGIWIYGILEGIGILSVITNAFVI AITSDFIPALVYAYKYGPCAGQGEAGQKCMVGYVNASLSVFRIS DFENRSEPESDGSEFSGTPLKYCRYDRDPPHSLVPYGYTLQF WHLAW
7109	964	102	WDORKNSLVPGFPAHGPAOEPEWKKESLGAAQEAALSIQLOPKE TQPPFKSEQVYLHFLSVVTEDEGPEPKDKGSLPQPPITEVESQVF SEKLATDTSTFEATSEGTLELQQRNPKAERLRWSPAQEESEFROM VVIHKEIPTGKKDHECSECGKTFIYNHSLVHVQRVHSGEKPYPK SDCGKTFKQSSNLGQHRIHTGEKPFECNECGKAFRWGAHLVQH CRIHSGEKPYPCECGKAFSQSSYLSQHRRIHSGEKPFI CKECG KAYGWCSELIRHRRVHARKEPSH
7110	96	697	RLDNFSGFLVEVTKEERHIVKPLYDRYLRVOMLTRASITPVLG SPSTKRRGQMLQPIIEGETAHFFEEIKEEEDGVNLSSSELGDM KTAVQVQSSSLKNSSESDVEENQEKALDLRLSSSRAASMPELLEQ LWKARAEKKLRKTLREFEEAFYQQNGRRAQKEDRVPVLEEYRE YKKIKAKRLLEVLISKQDSKSI
7111	2	414	GSGLYRGFTPGGQCIWKPNMPPDHERNFGFTQFALELNELTAE LKRSLPSTDTLRFPDORYLEEGNIQAQAEAKRRIEQLORLRRKV MEENNIHQARFRRQTDSSGKEWVNTNTYWRRAEPGYGNMD GAVLW
7112	103	495	PRCFVADRGRLIGGLFDVVTIMEGKTLNLTCTVFGNPDPEVIW FKNDQDIQSEHFSVKVEQAKYVSMITIGVTSDESGKYSJINKN KYGGKIDVTVSVYKHGEKIPDMAPPQAKPKLI PASASAAGQ
7113	1	824	KCLRQAWHEAPSSLAFTWCSREERAEGGGLNHRSTIRDFKPPG LRFPSQRPMDKKKRSFKPCLAQPAQAPGTLRRVPVPTSHSGSL ALGLPHLPSPFKQAKFKRVGKEKCRPVLAGGSGSAGTPLQHSF ITEVTDVYEMEGGLNLNLDNFHSGRLQAFGKECSFEQLEHVREM QEKLARLHFSLDVGEEEDDEEEDGVTEGLPEEQKKTIMADRNL DOLLSNLGSCLGALVPGGMRGEGTYSQSHSWALGEKGVGVHGSK SSGPLNLPRR
7114	3	1492	VNEVDEQIDHYKESQDKFLWQAAFIGKETLKDESQGECKYCRKI IYLNITDFVSVKQRLPKYYSWERCSEKHHNLFLGQNRYSVRKKDDG CKAYWKVCLHYNLHKAQPAERFFDPNQRGKALHQKQALRKSORS QTGEKLYKCTECGKVFIQKANLVVHQRTHTGEKPYECECAKAF SOKSTLIAHORTHTEKPYECSECGKTFIQKSTLIKHQRTHTGE KPFVCDKCPKAFKSSYHLIRHEKTHIRQAFYKGIKCTTSSLIYQ RIHTSEKQCSEHGKASDEKPSPTKHWRTHTKENIYECSEKCGKS FRGKSHLSVHQRIHTGEKPYECSCGKTFSGKSHLSVHHRTHTG EKPYECRRCGKAFGEKSTLIVHQRMTGEKPYKNECGKAFSEK SPLIKHQRIHTGERPYECTDCKKAFSRKSTLIKHQRIHTGEKPY KCSECGKAFSVKSTLIVHHRTHTEKPYECRDCGKAFSGKSTLI KHORSHTGDKNL
7115	1	947	NAAHGYNWGLWCMYIIPQDWDLRGDESAPIRTFAMIGCSFVVD REYFGDIGLLDPGMEVYGGENVKLGMRVWQCGGSMEVLPCSRVA HIERTRKPYNNIDYIYAKRNALRAAEVWMDDFKSHVYMAWNI PM SNPGVDFGDVSERLALRQRLKCRSFKWYLENVYPEMRYVNTLT YGEVRNSKASAYCLDQGAEDCDRAILYPCHGMSSQLVRYSDGL LQLGPLGSTAFLPDSKCLVDDGTGRMPTLKKCEDVARPTQRLWD FTQSGPIVSRATGRCLEVEMSKDANFGLRLVVQRCGQKWNIRN WIKHARH
7116	866	95	RVRMRNRAEVIEEKL SMKSWAKFRPGEPWKGYPNIDPETDPYVT PGSVINNLINTVREVDHLDRNSGSSSSSLNTTLPSTSAWSSIR

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			ASNYNVPLSSTAQSTSARNSDSKLTWSPGVSNTNTSLAHELWKVP LPPKNITAPSRPPPGLTGQKFLSTWDNSPLRIGGGWGNSDARY TPGSSWGESSGRITNWLVKNTLPQIDGSTLRITLCMQHGLIT FHLNLPHGNAIVRYSSKEEVVKAQKSLHISDLFLTL
7117	695	1261	LLISTPGGCEPPPSIEFTYTGAWGKALPAPHPFCAPGALPQGA FVSQAARAIPLLQPSQAQAEGLSQPARACGALCSLPWPLRNWG SPILRLPGGLRTPNTDRKTRRSAMACWARAQWDTLGLPKLSHR CKVCLRHPRPTGVRGGPGAAGRQGGMGTRRRGFTTSGARDPGGL RVKHCQPTGHL
7118	49	1863	PHCEPNPGAGAMVLLHVLFEHAVGYALLALKEVEEISLLQPQVE ESVLNLGKFHSIVRLVAFPCPFASSQVALENANAVSEGVVHEDLK LLETHLPSKKKKVLGVDGPKIGAAIQEELGYNCQTGGVIAET LRGVRHLHFHNLVKGLTDLSSACKAQLGLGHSYSRAKVKFNVRVD NMIIQSISLLDQDKDINTFSMRVREWYGYHFPPELVKIINDNAT YCRLAQFIGNRRELNEDKLEKLEELTMDGAKAKAILDASRSSMG MDISALDLINIESFSSRVVSLSEYRQSLHTYLRSKMSQVAPSL ALIGEAVGARLIAHAGSLTNLAKYPASTVQILGAEKALFRALKT RGNTPKYGLIFHSTFIGRAAAKNKGRISRYLANKCSIASRIDCF SEVPTSVFGEKLRQVEERLSFYETGEIPRKNLDVMKEAMVQAE EAAAEITRKLEKQEKRLKKEKKRLAALALASSENSSTPEECE EMSEKPKKKKKQKQPEVPQENGMEPPSISFSKPKKKKSFSKEEL MSSDLEETAGSTSIPIKRRKSTPKEETVNDPEEAGHRSGSKKKRK FSKEEPVSSGPEEAAGKSSSKKKKKFKASQED
7119	49	1863	PHCEPNPGAGAMVLLHVLFEHAVGYALLALKEVEEISLLQPQVE ESVLNLGKFHSIVRLVAFPCPFASSQVALENANAVSEGVVHEDLK LLETHLPSKKKKVLGVDGPKIGAAIQEELGYNCQTGGVIAET LRGVRHLHFHNLVKGLTDLSSACKAQLGLGHSYSRAKVKFNVRVD NMIIQSISLLDQDKDINTFSMRVREWYGYHFPPELVKIINDNAT YCRLAQFIGNRRELNEDKLEKLEELTMDGAKAKAILDASRSSMG MDISALDLINIESFSSRVVSLSEYRQSLHTYLRSKMSQVAPSL ALIGEAVGARLIAHAGSLTNLAKYPASTVQILGAEKALFRALKT RGNTPKYGLIFHSTFIGRAAAKNKGRISRYLANKCSIASRIDCF SEVPTSVFGEKLRQVEERLSFYETGEIPRKNLDVMKEAMVQAE EAAAEITRKLEKQEKRLKKEKKRLAALALASSENSSTPEECE EMSEKPKKKKKQKQPEVPQENGMEPPSISFSKPKKKKSFSKEEL MSSDLEETAGSTSIPIKRRKSTPKEETVNDPEEAGHRSGSKKKRK FSKEEPVSSGPEEAAGKSSSKKKKKFKASQED
7120	1991	64	QLGTRRCLRGDKVTNAMQDFLVNLEPRFIEPQTANLSVVFKDS NSTTPLIFVLSPGTDPADLYKFAEEMKFSKLSAISLGQGGQGF RAEAMMRSSI ERGKWVFFQNC:HLAPSWMPALERLIEHINPKVH RDFRLWLTSLSNKFVPSILONGSKMTIEPPRGVRANLLKSYSS LGEDFLNSCHKVMEFKSLLLSLCLFHGNALERRKFGPLGFNIPY EFTDGLRICEISQLKMFLEYYDDIPYKVLKYTAGIENYGGRVTF DWDRRCIMNILEDFYNPDVLSPEHSYSASGIYHQIPPTYDLHG LSYIKSLPLNDMPFIFGLHDNANITFAQNETFALLGTIIQLQPK SSSAGSQGREEIVEDVTQNIILLKVPEPINLQWMAKYPVLYEES MNTVLVQEVIRYNRLQVITOTLQDLLKALKGLVVMSSQLELMA ASLYNNTVPELWSAKAYPSLKPLSSWMDLLQRLDFLQAWIQDG IPAVFWISGFFFPQAFLTGTLQNFARKFVISIDTISFDFKVMFE APSELTQRPQVGCYIHGLFLEGARWDPEAFQLAESQPKELYTEM AVIWLPTPNRKAQDQDFYLCPIYKTLTRAGTSLTGHSTNYVI AVEIPHQPRHWIKRGVALICALDY
7121	2	546	RPLRPVVLSLGSMVGLMTYGRROFQSLDTTMRRLIPPFREASAK LTTLVDAEAEFTAYLEAMRLPKNTPEEKDRRTAALQEGRLRAV SVPLTLAETVASLWPAQELARCGNLACRSIDLQVAAKALEMGVF GAYFNVLINLRDITDEAFKDQIHVRVSSSLQEAKTQALVLDCL

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7122	2	546	ETRQE RPLRPFWLSLGSVMGLMTYGRQFOSLDTTMRRLIPPFREASAK LTTLVDADEAFTAYLEAMRLFKNTPEEKDRRTAALQEGRLRAV SVPLTLAETVASLWPALELARCENLACRSDLQVAAKALEMGVF GAYFNVLINLRDITDEAFKDOIHRVSSLLQEAQTQAAVLVLDCL ETRQE
7123	1	1092	KPAVPEARSAGTSEAGRSGAEFVSCGSVSGDGAAMRLTPRALCS AAQAAWRENFPLCGRDVARWFFGHMAKGLKKMQSSLKLVDCIIE VHDARIPLSGRNPLFQETLGLKPHLLVKNMDLADLTEQKIMQ HLEGEGLKNVIFTNCVKDENVKQIIPMVTTELIGRSHRYHRKENL EYCIMVIGVPNVGKSSLINSLRRQHLRKGKATRVGGEGITRAV MSKIQVSEPLMFLDTPGVLPRISEVETGLKLALCGTVLDHL VGEETMADYLLYTLNKHQRFGYVQHYGLGSACDNVERVLKSVAV KLGTQKVKVLTGTGNVNVIOPNYPAAARDFLQTFRRGLLGSVM LDLDVLRGEPV
7124	2	382	LPLTLLLAAPFAHLLLPCHDQSPCWHFPGPALSPTGLPFLSWAM ANSGLQLLGYFLALGGWVGIIASTALPQWKQSSYAGDASIQLRS KVFVLESEWGGDSLGLPRDCGWSCLLHSAVRSEKGFWS
7125	166	1127	NCISEKRNYSFSMQKGRGRTSRIIRRRKLCSSSESRGVNESHKSE FIELRKWLKARKFQDSNLAPACFPGTGRGLMSQTSLOEGOMIIS LPESCLLT\RDTVIRSYLGAYITKWKPPPSFLLALCTFLVSEKH AGHRSLLEA\YLEILPKAYCTPCVLEPEVNNLLPKSLKAKAEQ RAHVQEFFASSRDFSSLLQPLFAEAVDSIFSYALLWACTVNT RAVYL\SPGSGNAFLQSRTPVQLAPYLDLLNHSFHVQVKAAPNE ETHSYEIRTTSRWKHEEVFICYGPHDNQRLFLEYGFVSVHNPH ACVYVSRGWNQLCS
7126	1	733	CRDMAAFIVPSFARRCSQKGSGLHLPQTQPLWAAMS PRGQERG SHSQAREPORPGRWLLGSLQSSPGTLGQAGTASRRRCMVQRWV QVATGRRRAVQVPGKGLGALGETSPGASRGMSGGAGGCWALGWA PSPVLPWLLGPPPWLSIIISDSGTQRPSPRRCPARSPWGPQC WRGGRIASAEASST*TPGSGSRARSRRSPGSRRRSASAPSTP PTDACA*SCVARPAGSRSSRPAA
7127	1311	277	GLPAMCST*KAGYEEETEGDCIPKDR*IEKRFFKEI*RRIPRI AKQKQI*S*NSQKIGASEIDRGRKEADCSAPAAARIGAVSVFR RSTQEARVSPRNSAKSANLRAVRAD*WEHFVLLFHTPEQFLAEC ICRST**K*WHQLC*PLSSL*TLKRLKLL*VLFRI*WLKDCDV *FCQKIFATNFCNWQNLIQ*EE*KPVEYSVEN*HIMNLLPM*L CQSSLRDQTIIVTWRM*RNYSMFRINMISSL*DGSIHIPKLHFPY PALIFTLTVPINSCCORPLPLFAHQSIKTLASSGSPMLACLRL LVKKRAFIHTPRSPGCSV*CKHVLVKDNKNVCVGSEV
7128	2	5228	GRVDLWTILLGRSALRELSQIEAELNKHWRRLLEGLSYKPPSP SSAEKVKANKOVASPLKELGLRISKFLGLDEEQSVQILQCYLQE DYRGTRDSVKTVLQDERQSQALILKIADYEEERTCILRCVLHL LTYFQDERHPYRVEYADCVDKLEKELVSKYRQOFEELYKTEAPT WETHGNLMTERQVSRWFVQCLREQSMLEIIFLYYAYFEMAPSD LLVLTKMFKEQFGSRQTNRLHVDETMDPFVDRIGYFSALILVE GMDIESLHKCALDDRRELHQFAODGLICQMDCLMLTFGDI PHH APVLLAWALLRHTLNPEETSSVVRKIGGTAIOLNVFOYLTRLLO SLASGGNDCTTSTACMCVYGLLSFVLTSLELHTLGNQQDIIDTA CEVLADPSLPFLFWGTEPTSLGILDSVCGMFPHLLSPLLQLL RALVSGKSTAKKVYSFLDKMSFYNELYKHKPHDVISHEDGTLWR RQTPKLLYPLGGQTNLRIPQGTVGQVMDDRAYLVRWEYSYSSW TLFTCEIEMLLHVSTADVIQHCRVQPIIDLHVKVISTDLSIA DCLLPITSRIYMLLQRLTTVISPPVDVIAVCNCLTVLAARNPA KVWTDLRHTGFLPFVAHPVSSLSQMISAEGMNAGGYGNLLMSE QPOGEYGVITIAFLRLITTLVKGLGSTQSOGLVPCVMFVLKEML

SEQ ID NO:	Predicted beginning nucleotide location corresponding to first amino acid residue of amino acid sequence	Predicted end nucleotide location corresponding to first amino acid residue of amino acid sequence	Amino acid segment containing signal peptide (A=Alanine, C=Cysteine, D=Aspartic Acid, E=Glutamic Acid, F=Phenylalanine, G=Glycine, H=Histidine, I=Isoleucine, K=Lysine, L=Leucine, M=Methionine, N=Asparagine, P=Proline, Q=Glutamine, R=Arginine, S=Serine, T=Threonine, V=Valine, W=Tryptophan, Y=Tyrosine, X=Unknown, *=Stop Codon, /=possible nucleotide deletion, \=possible nucleotide insertion)
			<p>PSYHKWRYNSHGVREQIGCLILELIHAILNLCHETDLHSSHTPS</p> <p>LOFLCICSLAYTEAGQTVINIMIGVDTIDMVAAPRSDGAGG</p> <p>QGGQQLLIKTVKLAFSVTNVIRLKPPSNVVSPEQALSQHGAG</p> <p>GNNLI AVLAKYIYHKHDPALPRLAIQLKRLATVAPMSVYACLG</p> <p>NDAAAIRDAFLTRLQSK\IE\DMRIK\VMIL\EFLTVA\VETOP</p> <p>GLIELFLNLEVKG\SDGSKEFSLGMW\SLCHAV\WVELIDSQQ</p> <p>QDRYWCPLHRAAIAFLHALWQDRDSAMLVLRTPKPFWENLT</p> <p>SPLFGTSLPSETSEPSILETCALIMKII\CEIYYVVKGSLDQP</p> <p>LKDTLKKFSIEKRFAYWSGYVKS LAVHVAETEGSSCTSLLEYOM</p> <p>LVS AWRMLLIATTHADIMHLTDSVVRQLFLDVLDTGKALLIV</p> <p>PASVNCRLGSMKCTLLILLROWKRELGSVDEILGPLETELEG</p> <p>VLQADQQLMEKTKAKVFSAFITVLQMKEMKVS DIPQYSQVLNV</p> <p>CETLQEEVIALFDQTRHSLALGSATEDKDSMETDDCSRSRHRDQ</p> <p>RDGVCVIGLHLAKELCEVDEDDGSDWLQVTRRLPILPTLLTTLEV</p> <p>SLRMKQNLHFEATLHLLLTARTQOGATAVAGAGITQSI\CLPL</p> <p>LSVYQLSTNGTAQTPSASRKS LDAPS WPGVYRLSMSLEQLKLT</p> <p>LRYNFLPEALDFVGVHOERTLQCLNAVRTVQSLACLEADHTVG</p> <p>FILQLSNFMKEWHFHLQPLMRDIQVNLGYLCOACTSFLHSRKM</p> <p>QHYLQNKNGDGLPSAV\AQRV\QRPSSAASAPSSSKQPAADTE</p> <p>ASEQQALHTVQYGLLKILSKTLAALRHFTPDVCQILLDQSLDLA</p> <p>EYNFLFALSFTTPTFDSEVAPSGTLLATVWVALNMLGELDKKK</p> <p>EPLTQAVGLSTQAEGRTRLKSLMFTMENCFYLLISQAMRYLRD</p> <p>PAVHPRDKQRMKQELSSSELSTLLSSLSRYFRRGAPSSPATGVLP</p> <p>SPQKSTSLSKASPESQEPLIQVQAFVRHMOF</p>
7129	1	1054	<p>FRFRWRRRLH*AGPASSAGGSPGEASGTMSGELPPNINIKEPR</p> <p>WDQSTFIGRANHFTVTDPRNILLTNEQLESARKIVHDIYRQGI</p> <p>PPGLTENELWRAKYIYDSAFHPDTGEKMILIGRMSAQVPMNMTI</p> <p>TGCMFTFYRTTPAVLFWQWINSFNNAVNYTNRS GDAPLTVNEL</p> <p>GTAYVSATTGAVATALGLNALT KHVSPLIGRFVPPFAVAANCI</p> <p>NIPLMRQRELKVGIPVTDENGRLGESANAAKQAITQVVVSRL</p> <p>MAAPGMAIPPFIMNTLEKKAFLKRFPMWSAPIOVGLVGFCLVFA</p> <p>TPLCCALFPQKSSSVTSLEAELQAKIQESHPELRRVYFNKGL</p>
7130	2	760	<p>HEVPSLQTS DPLPGSVQRCVVVSQPNKENWCODHLYNSLGRKG</p> <p>ISAKSQPYHRSQSSSVLINSKMSDINYP SDVGKQQLLSLHRS</p> <p>RCESHQDLLPDIADSHQQTGTEKLSDLTLQDSQKVVVVRNRLPLN</p> <p>AQIATQNYFSNFKETDGEDDYVEIKSEDESELELSHNRRRKS</p> <p>DSKFVDADPSDNVCSGNTLHSLNSPRTPKKPVNSKGLSPYLTP</p> <p>YNDSDKLNDYLWRGSPSPNQCNIVOSLREKFQCLSSSSFA</p>
7131	805	573	<p>AAAEHIEVVKFLIEACKVNPFAKDRWGNIPLDADAVQFNHLEV</p> <p>KLQDYQDSYTLSETQAEAAAEALS KENLESMV</p>
7132	1420	1067	<p>IDMLLSGALVSGPYTLITTAVSADLGTHKSLKGNALHALSTVTA</p> <p>IIDGTGSGAALGPLLAGLLSPSGWSNVFYM LMFADACALLFLI</p> <p>RLIHKELSCPGSATGDQVPFKEQ</p>
7133	2	3648	<p>QQIPGLLPAGHESGDALRKPRLOKPI THLDDLFFTLPSLEKF</p> <p>EEELLEHLHVQDHFEQEGCPLDGGALEI LERRLRVGVHNGLGFVQ</p> <p>RPQVVVLVPEDVALTRSASF SRKVSSSKTSSGSQALVLSRL</p> <p>RLPEMVGHFAFAVIFQLEYVFSSPAGVDGNAASVTSLSNLACMH</p> <p>MVRWAVWNP LLEADSGRVTLPLQGGIQPNPSHCLVYKVPASMS</p> <p>SEEVKQVESGTLRFQFSLGSEEHLDAPTEPVSGPKVERRPSRKP</p> <p>PTSPSSPPAPVPRVLAAPQNSPVGPGLSISQLAASPRSP TOHCL</p> <p>ARPTSQLPHGSQASPAQAQEFPLEAGI SHLEADLSQTSLVLETS</p> <p>IAEQLQELPFTPLHAPIVVGTTQTRSSAGQPSRASMVLQSSGFP</p> <p>EILDANKQPAEAVSATEPVTFNPKKEESDCLQENEMVLQFLAFS</p> <p>RVAQDCRGTSWPKTVYFTFQFYRFPFATTPRLQLVQLDEAGQPS</p> <p>SGALTHILVPVSRDGTFDAGSPGFQLRYMVGPGFLKPGERRCFA</p> <p>RYLAVQTLQIDVWDGDSLLIGSAAVQMKHLLRQGRPAVQASHE</p>

SEC ID NO:	Predicted beginning nucleotide location corresponding to first amino acid residue of amino acid sequence	Predicted end nucleotide location corresponding to first amino acid residue of amino acid sequence	Amino acid segment containing signal peptide (A=Alanine, C=Cysteine, D=Aspartic Acid, E=Glutamic Acid, F=Phenylalanine, G=Glycine, H=Histidine, I=Isoleucine, K=Lysine, L=Leucine, M=Methionine, N=Asparagine, P=Proline, Q=Glutamine, R=Arginine, S=Serine, T=Threonine, V=Valine, W=Tryptophan, Y=Tyrosine, X=Unknown, *=Stop Codon, /=possible nucleotide deletion, \=possible nucleotide insertion)
			LEVVAETEYEQDNMVVSGDMLGFGGRVKPIGVHVVVKGRHLHLTLAN VGHPCQKVRGCSTLPSPSRVISNDGASRFSGGSLTTGSSRR KHVVQAQKLADVDSELAAMLLTHARQKGKQDVSRSDATRRRK LERMRSVRLQEAAGDGLRRGTSVLAQOSVRTQHLRDLQVIAAYR ERTKAESIASLLSLAITTEHTLHATLGVAEFFEVLKNPHNTQH TVTVEIDNPESLVIVDSQEWDRDFKGAAGLHTPVEEDMFHLRSL APQLYLRPHETAHVPPKQSFSAQGLAMVQASPGLSNEKGMEDAV SPWKSSAVPTKHAQVLFRAAGGKPIAVLCLTVELQPHVVDQVFR FYHPELSFLKKAJRLPPWHTFPGAPVGMGLEDPPVHVRCSDPNV ICETQNVGPGEPDIFLKVASGSPSEIKDFFVIIYSDRWLATPT QTWQVYLHSLQVRVDVSCVAGQLTRLSLVLRGTQTVRKVRAFTSH PQELKTDPKGVFVLPFRGVQDLHVGVRPLRAGSRFVHLNLVDVD CHQLVASWLVCLCCRQPLISKAFELMLAAGEGKGVNKRITYTNP YPSRRTFHLHSDHPELLRFREDSFQVGGGETYTIGLQFAPSQRV GEEELIIVINDHEDKNEEAFCVKVIYQ
7134	2115	1111	GGEGFSYPFHVGLSLGTPLDPHYVLEVHYDNPTYEGLIDNSG LRLFYTMDIRKYDAGVIEAGLWVSLFHTIPPGMPEFQSEGHTL ECLEEALEAEKPSGIHVFAVLLHAHLAGRGIRLRHFRKGKEMKL LAYDDDFDFFNFQEFQYLKEEOTILPGDNLITECRYNTKDRAEMT WGCLSTRSEMCLSYLLYYPRINLTRCASIPIIMEQLQFIGVKEI YRPVTTWPFIIKSPKQYKNLSFMDAMNKFMTKKEGLSFNKLVL SLPNNVRCSTDNAEWSIQGMTALPPDIERPYPKAEPLVCGTSSS SSLHRDFSINLLVCLLLSCTLSTKSL
7135	2	2072	FVPRVTFRSLSLGPKGESVGSITQPLPSSYLIFRAASESDGRC WLDALALRCSSLLRLGTCKPGRDGEPGTSPPASPSLCLGPA SATVHPDQDLFPLNGSSLENDASFCKSERENPEESDTETQDHSR KTESGSDQSETPGAPVRRGTTYVEQVQSELGELGEASQVETVSE ENKSLMWTLKQLRPGMDLSRVVLPFTFVLEPRSFNLKLSDYHH ADLSRAAVEEDAYSRMKLVLRWYLSGFYKKPKGIKKPYNPILG ETFRCCWPHPQDTSRTFYIAEQVSHHPVSAFHVSNRKDGFCIS GSITAKSRFYGNLSALLDGKATLTLNRAEDYTLTMPYAHCKG ILYGMTLELGKVTIECAKNNFQAQLEFKLPFFGGSTSI NOI SGKITSGEEVLASLSGHWDRDVFIKEEGSGSALFWTPSGEVRR QRLQHTVPLEEOTELESERLWOHVTRAISKDQHRATQEKFAL EEAQRQRARERQESLMPWKPQLFHLDPITQEWYRYEDHSPWDP LKDIAQFEQDGLRTLQOEAVAROTTFLGSPGPRHERSGPDORL RKASDQPSGHSQATESSGSTPESCPELSDEEQDGFVPGGESPC PRCKEARRLQALHEAILEAQAQELHRHLAAMLSSTARAAQA PTPGLLOSFRSWFLLCVFLACQLFINHILK
7136	2	418	DFVPSFRFPSTGNTSQTVWLLRAATLEKEVAGLREKIHLLDMLK SQQRKVRQMIQLONSKAVIOSKDATIOELKEKIAYLEAENLEM HDRMEHLIEKQISHGNFSTQARAKTENPGSIRISKPPSPKPMFV IRVVET
7137	2	466	WASGMSTVPGGSRHSLGIQVRGGWGVTTGGEESLTPVPADTWQA GSFKVATQERNPORAQMRLRRQKKGVPFLGDFLTQLRLDSAI PDDLGNNTNKRSEVRVLOEMOLLQVAMNYRLRPLEKFVITYFT RMEQLSDKESYKLSQCLEPENP
7138	2	466	WASGMSTVPGGSRHSLGIQVRGGWGVTTGGEESLTPVPADTWQA GSFKVATQERNPORAQMRLRRQKKGVPFLGDFLTQLRLDSAI PDDLGNNTNKRSEVRVLOEMOLLQVAMNYRLRPLEKFVITYFT RMEQLSDKESYKLSQCLEPENP
7139	1	357	SLRNSARGLKMAASAARGAAALRRSINQPVAFVRRIPWTAASSQ LKEHFAQGHVRRICLPFDKETGFHRLGLGWVQFSSEGLRNALQ QENHIIDGVKVQVHTRRPKLPQTSDEKKDF
7140	1401	1957	RASSLQVLKAWGLIPSSFQQOHTGQYALEELFDLRYVDCFCFS NMNVSLKQLRPSQWPFRGKCRKTPGWEEARPAQDLRGDLGKT

SEQ ID NO:	Predicted beginning nucleotide location corresponding to first amino acid residue of amino acid sequence	Predicted end nucleotide location corresponding to first amino acid residue of amino acid sequence	Amino acid segment containing signal peptide (A=Alanine, C=Cysteine, D=Aspartic Acid, E=Glutamic Acid, F=Phenylalanine, G=Glycine, H=Histidine, I=Isoleucine, K=Lysine, L=Leucine, M=Methionine, N=Asparagine, P=Proline, Q=Glutamine, R=Arginine, S=Serine, T=Threonine, V=Valine, W=Tryptophan, Y=Tyrosine, X=Unknown, *=Stop Codon, /=possible nucleotide deletion, \=possible nucleotide insertion)
			QAGPAEAHTRGPPRLPAATGCPHLPGLLSGISVDIDPTGLQSQ WTPKGQDPPLMFSEDYQKSLLEQYHLGLDQKLRKYVVGELIWNF ADFTNQQG
7141	124	1073	LDSRSCWLDMELEEDVRFIVDETLDFFGLSPSDSREEEDITVL VTPEKPLRRGLSHRSDPNAVAPAPQGVRLSLGPLSPEKLEEILD EANRLAQLEQCALQDRESAGEGLGPRRVKPSPRRETFVLKDSP VRDLLPTVNSLTRSTPS/LKQPDASTPE***EGVSQSGSPGYIWK EALQHEEGVTHLQSVPCIOKPSIFSS\SRSTPPVRGRAGPSGRA AASEETRAAKLRGAAKSSCOLPIPSAIPRPASRMPLTSRSVPP GRGALPPDLSLSTRKGLPRPSTAGHRVRESGHKVPVSQRLNLPVM GATRSNLQPP
7142	658	839	LIFLMLHMLKMLSSVTLHIRAFLYWICLKPTSCLI FQNVNLNL KK*SRVGVVVVMCRT/YSSDLQVGVIPWLLLGSDAAHDLDT LKKNKVTHILNVAYGVENAFSLDFTYKSI SILDLPETNILSYFP ECFEFIEAKRKDGVLVHCNA
7143	3	773	SLEMSSDGEPLSRMDESDSISSTIMDVSTISSGRSTPAMMNGQ GSTTSSSKNIAYNCCWDQCOACFNSSPDADHRSIHVDGQGG VFVCLWKGCKVYNTPTSTSQSWLQRMHLTHSGDKPFKCVVGGCNA SFASQGGGLARHVPHTFSQONSSKVSSQPKAKEESPSKAGMNKRR KLKNKRRRSLARPHDFFDAQTLDAIRHRAICFNLSAHIESLGKG HSVVFHSTVSILLFFQIKYKTLQKNISTIISKSLKI
7144	1	988	FRVNMQDGGPSPAESHKAEESAGMEARFLGLPDAAGSSGPTPAR RCPAPRPAGVS YVIRDEVEKYNRNGVNALQLDPALNRLFTAGR SIIRIWSVNQHKQDPYIASMEHHTDWNDIVLCCNGKTLISASS DDTVKVVNAHKGFCMSTLRTHKDYVKALAYAKDELVASAGLDR QIFLWDVNTLTALTASNNTVTSSLSGNKDSIYSLAMNQLGTII VSGSTEKVLRVWDPRCTAKLMKLKGHTDNVKALLNDRDGTQCLS GSSDGTIRLWSLQGORCIATYRVHDEGVWALQVNDAPTHVYSGG RDRKIYCTDLRNPDIRVLICE

TRADOC: I416260.1(%CSK01!.DOC)

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:1-1786 and 3573-5358, a mature protein coding portion of SEQ ID NO:1-1786 and 3573-5358, an active domain of SEQ ID NO:1-1786 and 3573-5358, and complementary sequences thereof.
2. An isolated polynucleotide encoding a polypeptide with biological activity, wherein said polynucleotide hybridizes to the polynucleotide of claim 1 under stringent hybridization conditions.
3. An isolated polynucleotide encoding a polypeptide with biological activity, wherein said polynucleotide has greater than about 90% sequence identity with the polynucleotide of claim 1.
4. The polynucleotide of claim 1 wherein said polynucleotide is DNA.
5. An isolated polynucleotide of claim 1 wherein said polynucleotide comprises the complementary sequences.
6. A vector comprising the polynucleotide of claim 1.
7. An expression vector comprising the polynucleotide of claim 1.
8. A host cell genetically engineered to comprise the polynucleotide of claim 1.
9. A host cell genetically engineered to comprise the polynucleotide of claim 1 operatively associated with a regulatory sequence that modulates expression of the polynucleotide in the host cell.
10. An isolated polypeptide, wherein the polypeptide is selected from the group consisting of:

- (a) a polypeptide encoded by any one of the polynucleotides of claim 1; and
 - (b) a polypeptide encoded by a polynucleotide hybridizing under stringent conditions with any one of SEQ ID NO: 1-1786 and 3573-5358.
11. A composition comprising the polypeptide of claim 10 and a carrier.
12. An antibody directed against the polypeptide of claim 10.
13. A method for detecting the polynucleotide of claim 1 in a sample, comprising:
- a) contacting the sample with a compound that binds to and forms a complex with the polynucleotide of claim 1 for a period sufficient to form the complex; and
 - b) detecting the complex, so that if a complex is detected, the polynucleotide of claim 1 is detected.
14. A method for detecting the polynucleotide of claim 1 in a sample, comprising:
- a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to the polynucleotide of claim 1 under such conditions;
 - b) amplifying a product comprising at least a portion of the polynucleotide of claim 1; and
 - c) detecting said product and thereby the polynucleotide of claim 1 in the sample.
15. The method of claim 14, wherein the polynucleotide is an RNA molecule and the method further comprises reverse transcribing an annealed RNA molecule into a cDNA polynucleotide.
16. A method for detecting the polypeptide of claim 10 in a sample, comprising:

a) contacting the sample with a compound that binds to and forms a complex with the polypeptide under conditions and for a period sufficient to form the complex; and

b) detecting formation of the complex, so that if a complex formation is detected, the polypeptide of claim 10 is detected.

17. A method for identifying a compound that binds to the polypeptide of claim 10, comprising:

a) contacting the compound with the polypeptide of claim 10 under conditions sufficient to form a polypeptide/compound complex; and

b) detecting the complex, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 10 is identified.

18. A method for identifying a compound that binds to the polypeptide of claim 10, comprising:

a) contacting the compound with the polypeptide of claim 10, in a cell, under conditions sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a reporter gene sequence in the cell; and

b) detecting the complex by detecting reporter gene sequence expression, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 10 is identified.

19. A method of producing the polypeptide of claim 10, comprising,

a) culturing a host cell comprising a polynucleotide sequence selected from the group consisting of a polynucleotide sequence of SEQ ID NO:1-1786 and 3573-5358, a mature protein coding portion of SEQ ID NO:1-1786 and 3573-5358, an active domain of SEQ ID NO:1-1786 and 3573-5358, complementary sequences thereof and a polynucleotide sequence hybridizing under stringent conditions to SEQ ID NO:1-1786 and 3573-5358, under conditions sufficient to express the polypeptide in said cell; and

b) isolating the polypeptide from the cell culture or cells of step (a).

20. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of any one of the polypeptides SEQ ID NO:1787 -3572 and 5359-7144, the mature protein portion thereof, or the active domain thereof.
21. The polypeptide of claim 20 wherein the polypeptide is provided on a polypeptide array.
22. A collection of polynucleotides, wherein the collection comprising the sequence information of at least one of SEQ ID NO:1-1786 and 3573-5358.
23. The collection of claim 22, wherein the collection is provided on a nucleic acid array.
24. The collection of claim 23, wherein the array detects full-matches to any one of the polynucleotides in the collection.
25. The collection of claim 23, wherein the array detects mismatches to any one of the polynucleotides in the collection.
26. The collection of claim 22, wherein the collection is provided in a computer-readable format.
27. A method of treatment comprising administering to a mammalian subject in need thereof a therapeutic amount of a composition comprising a polypeptide of claim 10 or 20 and a pharmaceutically acceptable carrier.
28. A method of treatment comprising administering to a mammalian subject in need thereof a therapeutic amount of a composition comprising an antibody that specifically binds to a polypeptide of claim 10 or 20 and a pharmaceutically acceptable carrier.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/34263

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/04; C12N 15/11, 15/63, 15/70, 15/82, 15/85; C07K 14/00
 US CL : 536/23.1; 435/320.1, 455, 468, 530/300, 350

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.1; 435/320.1, 455, 468, 530/300, 350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 MEDLINE, EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WAJIMA et al. The cDNA cloning and transient expression of an ovary-specific 17beta-hydroxysteroid dehydrogenase of chickens. Gene. 1999, Vol.233, pages 75-82	1-11, 13-16, and 19-26
A	US 5,175,095 A (MARTINEAU et al) 29 December 1992 (29.12.1992), see especially columns 3-18.	1-11, 13-16, and 19-26
A	Database PubMed, ID No. 2393392. FREUDENSTEIN et al. mRNA of bovine tissue inhibitor of metalloproteinase: sequence and expression in bovine ovarian tissue. Biochem. Biophys. Res. Commun. August 1990. Vol.171. No. 1. pages 250-256, see Abstract.	1-11, 13-16, and 19-26
A,P	Database PubMed, ID No. 10919256. HENNEBOLD et al. Ovary-selective genes I: the generation and characterization of an ovary-selective complementary deoxyribonucleic acid library. Endocrinology. August 2000. Vol.141. No.6. pages 2725-2734, see Abstract	1-11, 13-16, and 19-26
A	Database PubMed, ID No. 2760883. BEIL et al. Synthesis of polypeptides by the cervix of the baboon (Papio anubis). J. Reprod. Fertil. July 1989. Vol.86. No.2. pages 535-544, see Abstract.	1-11, 13-16, and 19-26
A,P	Database PubMed, ID No. 10830289. HINSHELWOOD et al. A 278 bp region just upstream of the human CYP19 (aromatase) gene mediates ovary-specific expression in transgenic mice. Endocrinology. June 2000. Vol.141. No.6. pages 2050-2053, see Abstract.	1-11, 13-16, and 19-26

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

Special categories of cited documents:	
* "A" document defining the general state of the art which is not considered to be of particular relevance	* "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
* "E" earlier application or patent published on or after the international filing date	* "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
* "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	* "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
* "O" document referring to an oral disclosure, use, exhibition or other means	* "&" document member of the same patent family
* "P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search	Date of mailing of the international search report 07 JUN 2001
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer: Michael Woodward Telephone No. (703)308-0196

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

international application No.

PCT/US00/34263

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This includes 4 invention Groups and 3572 sequence species

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☐

- The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet(1)) (July 1998)

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid. Group I, claims 1-11, 13-16, and 19-26, drawn to nucleic acid molecules, vector molecules and host cells containing said nucleic acids, polypeptides, methods of making said polypeptides and method of detection using said nucleic acids and polypeptides. Group II, claim 12 and 28, drawn to antibodies and method of treatment using composition comprising said antibodies. Group III, claims 17-18, drawn to methods of identifying a binding partner to a polypeptides. Group IV, claim 27, drawn to method of treatment using composition comprising polypeptides.

The inventions listed as Groups I-IV do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I encompasses nucleic acids, polypeptides expressed thereby, vectors and host cells containing same, respectively, and methods of making as well as the first method of use of this subject matter. Groups II-V all are directed to different special technical features as summarized as follows: Group II is directed to an antibody and method of treatment using same, which antibody undergoes recognition and binding reactions wherein what is bound is different from what is bound by the compositions of Group I. For example, the polypeptides of Group I do not bind the polypeptides of Group I as the antibody of Group II does. Identification of binding partner and treatment are clearly different special technical features from detection. Group III is directed to the identification of a binding partner of a polypeptide, which is not identified in any of the other Groups and thus clearly contains its own special technical feature. Group IV is directed to treatment, which is a clearly different methods than the methods in the other Groups. Thus, in summary, each of Groups I-IV are directed to different special technical features and thus support this lack of unity.

Additionally, each of the claims is directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows: The claims include a series of polynucleotides and the polypeptides encoded thereby as represented by the sequences of SEQ ID Nos: 1-1786, and 3573-5358. Each of these polynucleotide sequences encodes a separate polypeptide and thus represent a separate gene. Therefore, each of these genes defines its own special technical feature. In summary, one species is a gene represented by one polynucleotide sequence and one polypeptide sequence encoded thereby.

CORRECTED VERSION

(19) World Intellectual Property Organization
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(10) International Publication Number
WO 01/53312 A1(51) International Patent Classification: C07H 21/04,
C12N 15/11, 15/63, 15/70, 15/82, 15/85, C07K 14/00

(21) International Application Number: PCT/US00/34263

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(30) Priority Data:

09/471,275	23 December 1999 (23.12.1999)	US
09/488,725	21 January 2000 (21.01.2000)	US
09/552,317	25 April 2000 (25.04.2000)	US
09/598,042	9 July 2000 (09.07.2000)	US
09/620,312	19 July 2000 (19.07.2000)	US
09/653,450	3 August 2000 (03.08.2000)	US
09/662,191	14 September 2000 (14.09.2000)	US
09/693,036	19 October 2000 (19.10.2000)	US
09/727,344	29 November 2000 (29.11.2000)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US	09/488,725 (CIP)
Filed on	21 January 2000 (21.01.2000)
US	09/552,317 (CIP)
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(71) Applicant (for all designated States except US): HYSEQ, INC. [US/US]; 670 Almanor Avenue, Sunnyvale, CA 94086 (US).

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(75) Inventors/Applicants (for US only): TANG, Y., Tom [US/US]; 4230 Ranwick Court, San Jose, CA 95118 (US).

LIU, Chenghua [CN/US]; 1125 Ranchero Way #14, San Jose, CA 95117 (US). ASUNDI, Vinod [US/US]; 709 Foster City Boulevard, Foster City, CA 94404 (US). CHEN, Rui-hong [US/US]; 1031 Flying Fish Street, Foster City, CA 94404 (US). MA, Yunqing [CN/US]; 280 W. California Avenue #206, Sunnyvale, CA 94086 (US). QIAN, Xiaohong, B. [CN/US]; 3662 Tumble Way, San Jose, CA 95132 (US). REN, Feiyan [US/US]; 7703 Oak Meadow Court, Cupertino, CA 95014 (US). WANG, Dunrui [CN/US]; 932 La Palma, Milpitas, CA 95035 (US). WANG, Jian-Rui [CN/US]; 744 Stendhal Lane, Cupertino, CA 95014 (US). WANG, Zhiwei [CN/US]; 836 Alturas Avenue, B36, Sunnyvale, CA 94085 (US). WEHRMAN, Tom [US/US]; 3210 CCSR Mol Pharm. 269 W. Campus Drive, Stanford, CA 94305 (US). XU, Chongjun [CN/US]; 4918 Manitoba Drive, San Jose, CA 95130 (US). XUE, Aidong, J. [CN/US]; 1621 S. Mary Avenue, Sunnyvale, CA 94087 (US). YANG, Yonghong [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). ZHANG, Jie [CN/US]; 4930 Poplar Terrace, Campbell, CA 95008 (US). ZHAO, Qing, A. [CN/US]; 1556 Kooser Road, San Jose, CA 95118 (US). ZHOU, Ping [CN/US]; 1461 Japaul Lane, San Jose, CA 95132 (US). GOODRICH, Ryle [US/US]; 4896 Sandy Lane, San Jose, CA 95124 (US). DRMANAC, Radoje, T. [YU/US]; 850 East Greenwich Place, Palo Alto, CA 94303 (US).

(74) Agent: ELRIFI, Ivor, R.; Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P.C., One Financial Center, Boston, MA 02111 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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[Continued on next page]

(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

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(48) Date of publication of this corrected version:

1 November 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(15) Information about Correction:

see PCT Gazette No. 44/2001 of 1 November 2001, Section II

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(10) International Publication Number
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Published:

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[Continued on next page]

(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

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(88) Date of publication of the revised international search
report: 20 June 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(15) Information about Corrections:

see PCT Gazette No. 25/2002 of 20 June 2002, Section II

Previous Correction:

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/04; C12N 15/11, 15/63, 15/70, 15/82, 15/85; C07K 14/00

US CL : 536/23.1; 435/320.1, 455, 468, 530/300, 350

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.1; 435/320.1, 455, 468, 530/300, 350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, EAST**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WAJIMA et al. The cDNA cloning and transient expression of an ovary-specific 17beta-hydroxysteroid dehydrogenase of chickens. Gene. 1999, Vol.233, pages 75-82	1-11, 13-16, and 19-26
A	US 5,175,095 A (MARTINEAU et al) 29 December 1992 (29.12.1992), see especially columns 3-18.	1-11, 13-16, and 19-26
A	Database PubMed, ID No. 2393392, FREUDENSTEIN et al. mRNA of bovine tissue inhibitor of metalloproteinase: sequence and expression in bovine ovarian tissue. Biochem. Biophys. Res. Commun. August 1990. Vol.171. No. 1, pages 250-256, see Abstract.	1-11, 13-16, and 19-26
A,P	Database PubMed, ID No. 10919256, HENNEBOLD et al. Ovary-selective genes 1: the generation and characterization of an ovary-selective complementary deoxyribonucleic acid library. Endocrinology. August 2000. Vol.141. No.8, pages 2725-2734, see Abstract.	1-11, 13-16, and 19-26
A	Database PubMed, ID No. 2760883, BEIL et al. Synthesis of polypeptides by the cervix of the baboon (Papio anubis). J. Reprod. Fertil. July 1989. Vol.86. No.2, pages 535-544, see Abstract.	1-11, 13-16, and 19-26
A,P	Database PubMed, ID No. 10830289, HINSHELWOOD et al. A 278 bp region just upstream of the human CYP19 (aromatase) gene mediates ovary-specific expression in transgenic mice. Endocrinology. June 2000. Vol.141. No.6, pages 2050-2053, see Abstract.	1-11, 13-16, and 19-26



Further documents are listed in the continuation of Box C



See patent family annex.

Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

Date of mailing of the international search report

05 SEP 2001

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

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Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This includes 4 invention Groups and 3572 sequence species

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 2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
 3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
 4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: *1-11, 13-16, and 19-26*
- Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet(1)) (July 1998)

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Additionally, each of the claims is directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows: The claims include a series of polynucleotides and the polypeptides encoded thereby as represented by the sequences of SEQ ID Nos: 1-1786, and 3573-5358. Each of these polynucleotide sequences encodes a separate polypeptide and thus represent a separate gene. Therefore, each of these genes defines its own special technical feature. In summary, one species is a gene represented by one polynucleotide sequence and one polypeptide sequence encoded thereby.

